THE RUBBER AGE AND TIRE NEWS

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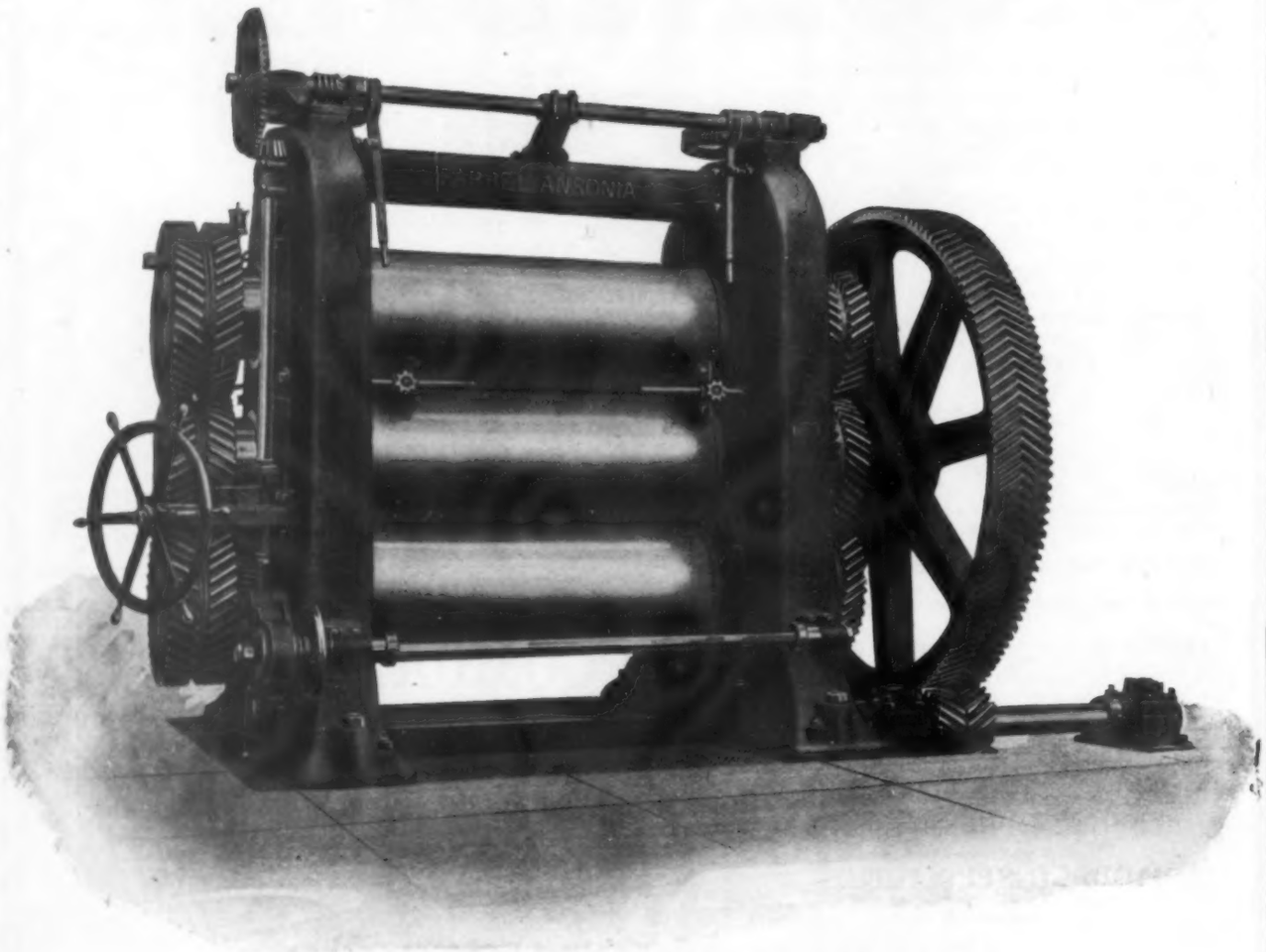

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THE RUBBER AGE AND TIRE NEWS

Rubber Industry Granted Preferred Classification

As a result of the brief presented to the Priorities Division of the War Industries Board by the War Service Committee of the Rubber Industry of the U. S. A., the text of which is printed elsewhere in this issue of THE RUBBER AGE AND TIRE NEWS, the Priorities Division has expressed its confidence in the good faith of the rubber industry, and subject to its agreement to fulfill all requirements of the War Industries Board and the War Trade Board, has designated it an essential industry with a classification of Class C-4.

A bulletin, issued by the War Industries Board, designating the classification of the rubber industry and a pledge to be signed by each manufacturer is here reprinted in full. No manufacturer will be entitled to priorities on the preference list until he has signed the pledge.

WAR INDUSTRIES BOARD
PRIORITIES DIVISION
CIRCULAR No. 24.

TO ALL RUBBER MANUFACTURERS:

The Priorities Division of the War Industries Board after conference between your representatives and the undersigned with other representatives of said Board has considered the status of your industry and its claims for general preferential treatment and for priorities in obtaining its supply of materials, and has reached the following conclusions:

A large part of the production of your industry is essential either for direct or indirect government uses or to supply necessary industrial and civilian requirements. There is, however, an element of non-essentiality in that production which in the national interest and to conserve the nation's supply of fuel, transportation, labor and material should be eliminated. The representatives of your industry have signified to the Priorities Division the willingness of the industry as a whole to strip itself of this non-essential production, and in its remaining production to limit itself to supplying only the current demand to adopt all practical measures which will tend to conserve supplies of raw material, labor, fuel and transportation.

The Priorities Division believes that if the production program hereinafter outlined is adopted and faithfully observed, the industry as a whole may be said to be engaged in essential production under conditions entitling it to preferential treatment in obtaining its supply of fuel, labor and transportation, and to proper priority assistance in obtaining its supplies of material.

PRODUCTION PROGRAM

1. Each manufacturer shall conserve to the greatest possible extent raw materials, fuel and labor; shall eliminate from its production unnecessary or undesirable types, sizes and styles of articles; and particularly shall observe and comply with any conservation plan promulgated or approved by the Conservation Division of the War Industries Board.

2. Each manufacturer shall limit its production of each and every article and item of production as near as may be to the current demand therefore; shall carry stocks only in amounts reasonably necessary to insure the supplying of current demands, and shall refrain from hoarding fuel, raw material or finished or semi-finished products.

3. Each manufacturer shall limit its items and amounts of production for export to those covered by export licenses issued by the War Trade Board.

4. Each manufacturer shall, as soon as possible after completing the manufacture of such articles already in process, wholly eliminate from its production all articles for which there is no essential use; and particularly all articles designated or listed as of such a character by the War Industries Board.

5. No manufacturer shall produce or deliver any article except for such essential uses as may be designated from time to time by the Priorities Division of the War Industries Board, and for the present to include the following general uses:

(a) For filling government orders and orders of the American Red Cross.

(b) For furnishing supplies to railroads operated by the United States Railroad Administration.

(c) For furnishing necessary supplies to preferred industries and plants, as the same are included from time to time upon the Preference List of said Priorities Division.

(d) For furnishing necessary supplies to those industries not listed upon said Preference List, but found by the said Priorities Division to be more or less essential and allowed to operate under a curtailed or controlled production program; but only to the extent that such supplies are necessary to enable any such plant to produce in accordance with such program.

(e) For civilian clothing and footwear (boots and shoes, rubber and fiber heels and soles), to the extent of the present production and to supply current demands only; the manufacturer to encourage conservation and economy by the public.

(f) For medicinal and sanitary purposes; to the extent of the current demand, and subject to strict compliance with any conservation program announced or approved by the Conservation Division of the War Industries Board.

6. Using as a basis the production of automobile casings and tubes under six inches for the eighteen months ended June 30, 1918 (not including those invoiced on direct government orders during the same period), the maximum production of such articles by each manufacturer for the last three months of 1918 is fixed at 3/12 of 50 per cent (measured both by number of units and amount of rubber consumed) of the average annual production for said eighteen months period; provided, however, that such maximum production may be increased to the extent of such casings and tubes produced on direct orders from any agency of the United States government; and provided further, that in the case of tire manufacturers whose plants were not in operation previous to January 1, 1917, but were in operation previous to January 1, 1918, such maximum production of each such manufacturer for the last three months of 1918 shall be one-half of 50 per cent of its production during the period January 1, 1918—June 30, 1918.

7. No restriction will at the present be placed upon the production of solid tires, or of pneumatic tires other than those described in the paragraph next hereinabove, except that such production shall not exceed that required to fill the current demand therefor.

8. Each manufacturer shall comply with all further or other orders of the War Industries Board with respect to the character and extent of its production and operations.

9. Each manufacturer shall file with the Priorities Division of the War Industries Board a pledge in writing in the form following:

Priorities Division, War Industries Board, Washington, D. C.

The undersigned hereby pledges itself (1 not to use nor, so far as lies within its power, permit to be used any products of its manufacture, now in or which may hereafter come into its possession or control save (a) for essential uses as that term has been or may be defined or applied from time to time by the Priorities Division of the War Industries Board, or (b) under permits in writing signed by or under authority of such Priorities Division; (2) that it will make no sale or delivery of any such products to any customer for resale until such customer has filed with it a similar pledge in writing, and that it will use its utmost endeavor to insure that its products shall be distributed solely for essential uses; provided that the provisions of this subdivision of

this pledge shall not, until further order of the War Industries Board, apply to casings and tubes under six inches; (3) that it will in all things strictly observe and comply with the production program for rubber manufacturers as the same set out in Circular No. 24 issued by said Priorities Division under date of September 21, 1918, and will limit and curtail its production, eliminate the production of non-essential articles, and adopt conservation measures and programs as provided in such circular; (4) that it will observe and comply with all other or further rulings and orders of the said Priorities Division; (5) that it will make and render at such time or times as may be designated any report or reports concerning its production and activities as may be required by said Priorities Division or the Rubber Section of the War Industries Board.

10. No manufacturer shall make, sell or deliver any of its products to any customer for resale until such customer has filed with it a pledge in writing in the following form:

To.....

The undersigned hereby pledges itself not to use nor, so far as lies within its power, permit to be used any products of your manufacture now in or which may hereafter come into its possession or control save (a) for essential uses as that term has been or may be defined or applied from time to time by the Priorities Division of the War Industries Board, or (b) under permits in writing signed by or under authority of such Priorities Division, provided that the provisions of this pledge shall not, until further order of the War Industries Board, apply to casings and tubes under six inches; further that it will make no sale or delivery of such product to any customer for resale until such customer has filed with the undersigned a pledge similar to this.

.....

The Priorities Division, believing that compliance with the above program will eliminate from the production of rubber manufacturers substantially all non-essential production, and accepting the assurances of the representatives of the industry that such program will be immediately put into effect, has certified the industry as a preferred industry, giving it a rating as Class IV. This action will entitle the industry to preferential treatment in its supply of fuel, labor and transportation in the manner and to the extent explained in the "foreword" to Preference List No. 2 issued by said Priorities Division as Circular No. 20, under date of September 3, 1918.

If, however, any rubber manufacturer shall (a) fail to file within fifteen days from the date of this circular its written pledge as hereinabove provided, or (b) fail to observe and comply with any of the terms or conditions of the program as herein set out, or with any of the terms or conditions of its written pledge, said manufacturer will forfeit its right to preferential treatment under the general listing of the industry as a whole, and will be certified to the various Government agencies controlling the supply of labor, fuel and transportation as having so forfeited its right to preferential treatment.

By virtue of the placing of the industry on the Preference List, rubber manufacturers will be entitled, in obtaining their supply of raw materials or finished or semi-finished products, to an automatic Class C rating under the terms and provisions of Circular No. 4 of the Priorities Division of the War Industries Board, dated July 1, 1918. If for any reason the manufacturer is unable to obtain materials under such automatic Class C rating, he may apply to the Priorities Committee for a higher rating by priority certificate, and said application wil be given proper consideration.

The Priorities Division relies upon the rubber industry and each and all of the plants constituting the same to faithfully and conscientiously observe and comply with all of the terms of the program herein set out, and to co-operate wholeheartedly with the Government in its effort to conserve and most effectively use the nation's supply of material, labor, fuel and transportation, to the end that the full strength of the nation may be mobilized in the most effective manner and directed into the most effective channels for the accomplishment of the one great common purpose, the winning of the war.

Yours very truly,
EDWIN B. PARKER,
Priorities Commissioner.
Washington, D. C., Sept. 21, 1918.

Preferential Classification for Rubber

The placing of the rubber industry on the preference list has been ordered by the War Industries Board, as a result of a conference held in Washington on September 11 between this Board and the War Service Committee of the Rubber Industry of the U. S. A., under certain conditions.

Harry T. Dunn, Chief of the Rubber Section of the War Industries Board, directed the War Service Committee of the Rubber Industry of the U. S. A. to immediately prepare certain vital statistics in order to lay before him and the War Industries Board the present state of the rubber industry and its willingness to restrict non-essentials and so warrant a classification of the industry as a whole in such priorities as will secure for it necessary labor, fuel and transportation.

The War Service Committee, as requested went to Washington on September 11 and made the presentation.

The War Industries Board expressed a willingness to place on the preference list, the rubber industry under the following conditions:

a. That all manufacturers pledge themselves to agree to the restrictions and to abide by the instructions of the War Industries Board.

b. That all members of the industry follow the rules and requests of the Conservation Division of the War Industries Board.

c. That members of the industry execute a pledge and agree to exact one from their customers as to the sale and use of rubber products.

d. The pamphlet enclosed does not embody the final conclusions of that conference but with some modifications of the suggestions in the pamphlet, the War Industries Board and the War Trade Board will immediately promulgate full information as to priorities, allocation of rubber, elimination or restrictions of productions and the form of pledge that will be required.

Judge Edwin B. Parker on Sept. 21 signed a ruling giving this industry a Class C rating.

The following is a reprint of the statements and suggestions made to the War Industries Board which the War Service Committee has just put out in pamphlet form:

Information and Suggestions

The War Service Committee of the Rubber Industry has been informed by Mr. H. T. Dunn, Chief of the Rubber Section of the War Industries Board, that it should as soon as possible make suggestions for the elimination of the manufacture of all articles containing rubber or reclaimed rubber which can be curtailed or dispensed with, if only temporarily, without interfering with the necessities of war and war work.

The committee was informed that the object in asking for these suggestions was to enable the War Industries Board to place the industry upon a basis which would insure priorities for the manufacture of articles which are deemed essential.

The Committee desires to point out that Rubber Products are mainly supplemental and not initiative to the industrial and commercial life of the country.

A curtailment of activities of the country will reflect a corresponding reduction in the demand for rubber goods so far as they are used for the purposes involved.

Rubber products which are complete in themselves and not component parts can be classified so far as being useful or non-useful, and the latter class is relatively so small that a curtailment or elimination would not be a serious matter to the continuation of the industry as a whole but in some cases might create a hardship upon individual concerns which specialize in the manufacture of some article or articles which would not come under the useful class.

For convenience of analysis and control the industry may be divided into the following classifications:

1. Pneumatic Tires of all kinds.
   (a) For Automobiles.
   (b) For Motor Cycles.
   (c) For Bicycles.
2. Solid Tires.
3. Medical and Surgical Rubber Goods.
4. Mechanical Rubber Goods.
5. Rubber Footwear.
   (a) Boots and Shoes.
   (b) Rubber and Fiber Heels and Soles.
6. Insulated Wire.
7. Rubber Clothing.
8. Waterproof Cloth.
9. Hard Rubber Goods.
10. Gas Defense Products.
11. Air Craft Materials.
12. Reclaimed Rubber.
13. Miscellaneous not included in above.

The above classifications cover the entire industry, and Exhibit A is appended, which shows the relative importance of each branch in the consumption of rubber and reclaimed rubber; also the approximate percentage of cost of labor and power to the total cost of each group.

The committee is informed that the Government's method of co-operating with the rubber industry will now take the form of granting priorities for rubber, other materials, labor and fuel only for useful purposes.

The committee desires to heartily indorse this method of control and to express the belief that it can be of material help to the War Industries Board in establishing a proper balance between too much or too little restriction.

Control of Industry

It would be impossible to enumerate the various articles produced by the industry,

and it seems to the committee that the only practical method of control is to determine first the status of as many branches and individual articles as possible, and for everything else to define the uses for which rubber articles may be produced.

This would immediately stop production of all goods which are not upon the approved list or are not necessary for the uses which have been approved.

This ruling would form a dragnet into which would fall thousands of articles which would require classification into useful or non-useful, or, in other words, articles which will or will not be allowed to be produced in whole or in part.

The following uses are suggested for which rubber goods are a necessity and the production of which should be allowed to the extent that the various articles are allowed to operate:

1. All rubber products necessary for filling Government orders.
2. Red Cross requirements.
3. Athletic goods.
4. Rubber supplies for all activities permitted whether required for finished products or for the operation of the activity.

Examples

Railway supplies.
Ship yard and ship building supplies.
Supplies for factories.
Supplies for agriculture.
Supplies for food and feed.
Mining supplies.
Supplies for oil wells and refineries.
Fire hose.
Supplies for telegraph, telephone and express companies.
Lumber production.
Automobile manufacturers' supplies.
Manufacturers of leather boots and shoes.
Supplies for electrical industry.
Coke plants.
Cement plants.
Foundries.
Cotton and woolen mills.
Paper mills.
Tanneries.

(*See Exhibit B.*)

A few rubber articles may be used by such a classification of industrial activities which might be dispensed with and a careful analysis must be made.

The following divisions of the industry would come under the above control of allowing rubber articles to be produced only for approved uses:

Mechanical Rubber Goods.
Hard Rubber Goods (*see Exhibit C*).
Miscellaneous not included in any other division.

The remaining divisions would be

Gas Defense

Government only.

Aircraft

Government only.

Insulated Wire

This Division Committee of the War Service Committee of the Rubber Industry is practically the same as the Wire and Cable Committee of the Electrical Manufacturing Industry. It is suggested that the Wire and Cable Committee is better qualified to handle this branch of the rubber industry for the War Industries Board.

Rubber manufacturers making insulated wire would then come under whatever regulations were determined upon, if any.

Athletic Goods

The committee suggests that no curtailment be placed upon the production of these goods. They form an unimportant part of the industry, but contribute largely to national health and physique.

Solid Tires

Viewed broadly, this branch of the industry is practically 100 per cent essential, and at present the Government requirements are taxing the production facilities to such an extent that stocks are automatically being reduced.

Rubber Footwear

(a) Boots and Shoes—There are twelve manufacturers in this Division and all are working on Government orders to such an extent that civilian requirements cannot be supplied. Next winter will probably see a shortage of rubber footwear for civilian use; so in this diviison there is even greater curtailment than may be desirable.

(b) Rubber and Fibre Heels and Soles—These goods are made from rubber and fibre compounds and replace leather. They will outwear leather at least two to one. Many million of people are depending upon them.

(*See Exhibit D*)

Export

This is not included in the list of divisions of the industry, but the committee understands that it is the desire of the Government to conserve and promote, wherever consistent, foreign trade—first, in order to maintain the foothold in foreign markets secured at considerable expense; second, to correct unfavorable exchange rates and to liquidate, by means of trade, unfavorable balances; and, third, to bring in gold.

If the understanding of the Committee is correct, it would appear desirable to continue uninterruptedly the export of rubber products subject to the control of the War Trade Board. A ruling is therefore requested with reference to export business.

Reclaimed Rubber

This branch of the industry is entirely dependent upon rubber manufacturers for its existence. It is composed of several independent units and reclaiming departments of rubber manufacturers.

Any curtailment in production of rubber goods will automatically curtail production of reclaimed rubber.

The committee desires to point out that the use of reclaimed rubber in the manufacture of rubber goods is one of the most important items of technique in the industry. Economy and competition are sufficient incentives for its use, and any further attempt to force its consumption would result in unsound practice.

Rubber Clothing

A large percentage of the production of rubber clothing is taken over for the needs of the Government, and plans for standardization of what is made for civilian use are now under way. Waterproof clothing, being used as a protection from the elements, comes under relatively the same class as rubber footwear, although the demand is not so great, nor are the stocks in the country so small.

Medical Rubber Goods

The principal articles produced under this classification in volume of production are hot water bottles, fountain syringes, and surgeons' gloves. The production of surgeons' gloves at the present time is very largely for the use of the medical department of the army and navy.

There are numerous other articles under this general classification, all of which are essential for the sick room, or necessary to the health and well being of the people, but in no one item is the production of unusual volume. The production of water bottles and syringes has been along rather extravagant lines, owing to the large variety of styles and types manufactured, but this number has been greatly reduced, as per report filed with the Conservation Division.

Waterproof Cloth

Aside from hospital sheeting, which is used in all hospitals and in many homes, the greater part of the production of waterproof cloth goes into the various lines of industry, where it is cut up and used in manufacturing articles of common use. Several examples are as follows:

Tobacco Trade—Waterproof Sheeting is used for covering, sweating, curing and handling tobacco, and is also used in making aprons for the production of machine manufactured cigars and cigarettes.
Piano and Organ Trade—Various qualities of Waterproof and Air Tight Cloth are manufactured for small and large bellows of player pianos, as well as for organs.
Cameras—Light-proof Rubber Coated Cloth is used for extension bellows in cameras, also for focusing purposes.
Automobile Tops—Automobile Top Material is manufactured in large quantities for the production of new tops for automobiles, and in small quantities for repairs and replacements of old tops.
Hat Trade—A limited quantity of rubber coated material is used by hatters for the forming of straw and felt hats.
Engraving and Printing—Rubber Coated Cloth is used in printing establishments wherever fine engraved printing is done, such as bank notes and stock certificates, and a considerable quantity is used by the Government printing works.
Cutting Trade—A limited quantity of lightweight, waterproof material is used for the manufacture of small articles, such as nursery sheets, diapers, dress-shields, acid sleeves, money belts, etc. It is also used for the manufacture of children's bath tubs.
Proofers—A large quantity of cloth is waterproofed for the use of manufacturers of Mackintosh Clothing who have no rubber mills.

Pneumatic Tires

This branch is the most important in the industry. It is suggested that, for the purpose of allocation and priorities, casings and tubes be considered as one article. Demand will automatically regulate a balanced production, as one is useless without the other.

The War Service Committee understands that it is desired to curtail pneumatic tire production to the lowest point which will still preserve the structure of the industry. In this connection it is to be noted that the production of tires in the present volume is of recent origin and is represented by many units varying from large to medium and small. Roughly classified, it may be stated that there are five large tire manufacturers, seven medium tire manufacturers, about 100 small tire manufacturers.

The daily production based on 265 working days for 1917 was, for so-called large, from 9,800 to 21,600 tires per day. For the so-called medium, from 1,300 to 3,600 per day. For the so-called small, from 10 to 1,000 per day.

Many of the so-called small manufacturers are not yet well established and are dependent upon maximum capacity to meet obligations. Any drastic curtailment will threaten the existence of some of these so-called small units and this is accentuated by the possibility that they will be unable to compete for Government business. It is therefore apparent that it would not be ethical for the War Service Committee to recommend a minimum point of production which would still preserve the structure of the industry, inasmuch as this would actually provide for the ruin of some of the units, and the committee does not feel it should be asked to take this responsibility.

Now that a Rubber Section of the War Industries Board has been established, the committee feels it should no longer be asked to make recommendations, but should confine its work to procuring and presenting information asked for as well as keeping the Board fully posted on current conditions of the industry.

The War Industries Board is now in a more favorable position than the committee to form an intelligent opinion regarding the amount and regulation of future

allocations in respect to the manufacture of pneumatic tires.

The committee presents the following information to guide the Board in determining the necessary production to provide for present and future needs to conform with the general policy controlling the use of automobiles:

Basis—50% of 1917 Production

	Total number produced.	Number per day (365 days per year).
1917 production..	25,300,000	69,315
50% curtailment..	12,650,000	34,657
Present consumption, estimated.	24,500,000	67,123
Net loss per day..		32,466
Manufacturers' stocks on hand July 31, 1918.....		4,500,000
Dealers' stocks on hand July 31, 1918, estimated.....		3,000,000
Total stocks on hand July 31, 1918, estimated.....		7,500,000

At the above rate of production and consumption, stocks will theoretically last 231 days, making complete exhaustion the latter part of March, 1919.

A shortage throughout the country will be felt during the middle of November, 1918.

Unbalanced stocks require a considerable anticipation of above dates.

Basis 50% of 18 Months' Production (Jan. 1, 1917, to June 30, 1918)

	Total number produced.	Number per day (365 days per year).
18 months' production	37,050,000	67,671
50% curtailment..	18,525,000	33,835
Present consumption, estimated.	24,500,000	67,123
Net loss per day..		33,288
Manufacturers' stocks on hand June 30, 1918.....		4,500,000
Dealers' stocks on hand June 30, 1918, estimated.....		3,000,000
Total stocks on hand June 30, 1918, estimated.....		7,500,000

At the above rate of production and consumption stocks will theoretically last 225 days, making complete exhaustion the middle of *March*, 1919.

A shortage throughout the country will be felt during the first part of November.

EXHIBIT A

Article.	Pounds of rubber consumed in 1917.	Reclaimed rubber consumed in 1917.	Percentage of labor Cost.	Percentage of power Cost.
Automobile pneumatic casings	170,991,631	33,208,873	15%	2%
Automobile pneumatic tubes	37,547,640	855,669		
Motor and Bicycle Tires and Tire Sundries	6,305,449	6,199,427		
Solid Tires	26,176,513	6,789,200	7%	2%
Total Tires and Tubes	241,021,233	47,053,169		
Mechanical Rubber Goods	31,743,880	71,568,850		
Boots and Shoes	28,726,118	35,808,401		
Insulated Wire and Insulating Compounds	6,011,388	19,052,071		
Druggists and Stationers' Sundries and Surgical Rubber Goods	8,359,937	394,004		
Waterproof Clothing, including Carriage Cloth and Rubber Sheeting	3,562,833	11,694,326		
Waterproof Cloth, including Single and Double Texture	1,310,694	999,289	20%	2%
Hard Rubber Goods	2,610,544	4,845,968		
Rubber Cement	3,275,676	18,663		
Miscellaneous, not included in any of the above schedules	4,031,341	4,533,447		
Grand Total	330,653,644	195,968,188		

It is pointed out that, long before the point of exhaustion is reached, there will be a shortage throughout the country. Due to the various sizes and styles with which cars are equipped and the necessity of carrying these at available points in order to give prompt delivery and thus prevent owners from hoarding private stocks, it is estimated that when total stocks of manufacturers and dealers reach a minimum of 4,000,000 tires a shortage will be felt. This figure includes tires in transit which would total at least 750,000 to supply the country's present requirements.

The stock requirements would, of course, become less in relation to the restricted use of automobiles.

EXHIBIT B

Mechanical Rubber Goods

This branch of the industry is very important and includes many thousands of articles of great diversity. They may be generally subdivided into the following classifictions:

1. Belting.
2. Rubber Hose.
3. Packing.
4. Cotton Rubber-Lined Hose.
5. Mats, Matting and Tiling.
6. Molded Goods.
7. Heels and Soles.
8. Friction Tape.
9. Jar Rings.
10. Rubber Thread.
11. Tubing.
12. Lathe and Hand-Made Goods.
13. Springs and Bumpers.
14. Miscellaneous.

The following is a partial list of articles used for essential purposes:

Supplies for Factories, Machinery and Materials Needed in Production Authorized by the Government

Rubber Thread for elastic web manufacturers and airplane shock absorber cord
Blankets for Printing Presses.

All kinds of Packings, Hose, Belting, Moulded Goods and Rubber Covered Rolls — for coke plants, cement plants, stone quarries, powder plants, steel mills, nitrate plants, foundries, cotton and woolen plants, tanneries, paper mills, and all classes of essential factories.

Supplies for Agriculture

Thresher Belts, Suction Hose, Water Hose, Packings, Steam Hose.

Supplies for Food and Feed

Grain Elevators, Mills, Packing Houses, etc., and also supplies for canning and preserving.

Elevator Belts, Conveyor Belts, Hose, Packings, Jar Rings, Squilgee Rubber, Transmission Belts, Hog Scraper Belts, Moulded Goods, Valves, Hot Water Tubing, Large number of special moulded articles for Sugar Plants.

Railway Supplies

A. B. Hose, Car Heating Hose, Engine and Tender Hose, Fire Hose, Air and Pneumatic Tool Hose, Steam Hose, Water Hose, Axle Dynamo Belting, A. B. Gaskets, Throttle Packing, Air Pump Packing, Piston and Pump Packings, Sheet Packings, Valves, Squirt Hose, Step Treads, Tiling.

Ships, Shipyards and Ship Building Supplies

Packings, Deck Hose, Air and Pneumatic Tool Hose, Steam Hose, Suction Hose, Oil Hose (for oil burning boats), Fire Hose.

Mining Supplies

Elevator Belts, Conveyor Belts, Transmission Belts, Vanner Belts, Packings, Valves,

Air Hose, Steam Hose, Water Hose, Moulded Goods, Fire Hose.

Supplies for Oil Wells and Refiners

Driller Belts, Transmission Belts, Oil Hose, Water Hose, Suction and Discharge Hose, Steam Hose, Stuffing Box Rings, Packer Rubbers, Swab Rubbers, Cups, Pipe Rings, Packings, Fire Hose.

Lumber

Belts, Hose, Packings.

Auto Manufacturers' Supplies

Radiator Hose, Moulded Goods, Brake Lining.

Leather Boot and Shoe Manufacturers

Belting, Cements, Coated Fabrics, Hose, Packings.

Electrical Industry

Tape, Matting, Hard Rubber Goods, Belting Hose and Packings.

Supplies to Telegraph, Telephone and Express Companies

Tape, Hard Rubber Goods.

EXHIBIT C

Hard Rubber

This division of the industry is separate and distinct from the others, inasmuch as its products represent an entirely different finished material. The important items are:

1. Battery Jars, including Submarine Jars and Battery Jar accessories.
2. Sheet Rod and Tube for Electrical Purposes.
3. Hard Rubber Combs.
4. Hard Rubber Accessories for Medical and Surgical Goods.
5. Pipe Bits.
6. Fountain Pen Parts.
7. Automobile Accessories.
8. Buttons.
9. Pipes for Conducting Chemicals.
10. Receptacles for Powder Mills.
11. Buckets for Handling Acids in Chemical Plants and Powder Mills.

In addition to these there are thousands of miscellaneous articles made from hard rubber which cannot be classified.

Production of the following hard rubber articles has already been discontinued by the principal manufacturers:

Buttons (other than Navy Buttons), Hairpins, Pen Holders, Brush Backs, Bowling Balls, Roque Balls, Duck Pin Balls, Cigar and Cigarette Holders, Rulers, Inkstands, Stethoscopes, Ear Trumpets, Teething Rings, Match Boxes, Letter Openers, Crochet Hooks, Funnels, Caustic Holders, Pocket Flasks, Tumblers, Cork Screw Handles, Beer Glass Stands, Beer Scrapers, Beer Shakers, Drug Scoops, Suppositories, Thimbles, Tatting Shuttles, Embroidery Rings.

EXHIBIT D

Rubber Heels and Fibre Soles

USES—Rubber heels and fibre soles are used in large quantities both in the construction of new shoes and in the repair of old ones.

In the past year approximately 75,000,000 pairs of rubber heels and 15,000,000 pairs of fibre soles were made and used in the United States alone.

Both are used as a substitute for leather and both give longer service than leather soles and heels, respectively.

Rubber heels and fibre soles are used largely by working people who stand upon their feet or walk while at work.

ECONOMIES—Shoes either made or repaired with rubber heels and fibre soles are cheaper to the consumer than with the corresponding leather parts.

Fibre soles have enabled the manufacturer of shoes to market a serviceable product at a price within the reach of the laboring classes.

Fibre soles and rubber heels will wear from two to three times as long as corre-

sponding parts made from leather employed for similar purposes.

Consequently there is great economy both in labor and in materials in the making and use of rubber heels and fibre soles, for where heels and soles of leather are used they must be removed and the shoes repaired two or three times as often as where the rubber heels and fibre soles are used.

Moreover, there is an initial saving in labor, since it requires less labor to produce rubber heels and fibre soles than to produce heels and soles of leather.

About 50 per cent of the labor used at present in the producing of rubber heels and fibre soles is female labor.

There is a saving in steel (approximately 50 per cent) in the use of the rubber heel. First, because it requires fewer nails to attach the rubber heel and, second, because a set of nails employed to attach a rubber heel is used through the lives of two or three sets of nails employed in attaching any other type of heel.

Rubber heels and fibre soles are made largely from by-products including reclaimed rubber, which by-products do not occupy ship space. There is an adequate supply of such by-products available which is not needed in the production of more essential articles.

If the production of rubber heels and fibre soles was curtailed, leather would be substituted therefor and additional leather for this purpose must be imported and, therefore, occupy much ship space.

Fibre soles and rubber heels are waterproof and eliminate the necessity of using rubber shoes on many occasions.

PRECEDENT—Great Britain has found it advisable to encourage the making and use of rubber heels and fibre soles during the war.

Crude Rubber Allocation Program

The crude rubber allocation program for the forthcoming quarter of October-December is outlined in the following letter which has just been received by the Committee on Rubber and Kindred Products of the War Service Committee of the Rubber Industry of the U. S. A. from the War Trade Board:

Gentlemen:

The quantity of rubber for which import licenses may be issued by the War Trade Board during the forthcoming October-December period has been fixed at 25,000 tons, and will be allocated in accordance with the following program to manufacturers who have furnished the information called for in Questionnaires 2, 14, 16 and 17, and who conform to the plan of curtailment of production during the months of August and September announced by the War Trade Board, and who subscribe to the limitations and regulations governing the production and sale of rubber products as promulgated, or as may be hereafter promulgated, by the War Industries Board.

For the purpose of allocation, the consumption of crude rubber will be considered under three classes, as follows:

Class A. That used in the manufacture of products invoiced during October-December, 1918, on direct Government orders. (Direct Government orders are to include direct orders from all railroad, express, telephone and telegraph companies under Government control, direct Red Cross and direct Allied Government orders.)

Class B. That used in the manufacture of automobile casings and tubes under 6 inches in diameter.

Class C. That used in the manufacture of all other rubber products.

Rubber will be allocated in the three classes upon the following basis:

Class A. Rubber consumed in this class will be replaced in full, if reported in the usual manner. Manufacturers will have the privilege of making advance applications for an amount not to exceed 75 per cent of the amount to which they will be entitled. The remainder is to be replaced when the exact amount has been determined.

Class B. (1) To manufacturers whose plants were in operation previous to Jan. 1, 1917, on the basis of one-eighteenth of their 18 months' rubber consumption in said class from January, 1917, to June, 1918, inclusive, after deducting from said consumption all rubber consumed in direct Government orders falling within said class, invoiced January-June, 1918, inclusive.

(2) To manufacturers whose plants were not in operation previous to Jan. 1, 1917, but were previous to Jan. 1, 1918, on the basis of one-sixth of their rubber consumption in said class from January, 1918, to June, 1918, inclusive, after deducting from said consumption all rubber consumed in direct Government orders falling within said class, invoiced during January-June, 1918, inclusive.

(3) To manufacturers whose plants were not in operation previous to Jan. 1, 1918, but were previous to July 1, 1918, a quantity equal to their average monthly rubber consumption in said class during the period of operation to Aug. 1, 1918, after deducting rubber consumed in direct Government orders falling within the said class, invoiced during said period.

Class C. Manufacturers will be allocated a quantity equal to three-fourths of their consumption of rubber in said class during April, May and June, 1918, after deducting rubber consumed in direct Government orders falling within said class, invoiced during April, May and June, inclusive.

The amount allocated to each manufacturer will be entered in the books of the Bureau of Imports of the War Trade Board, which amount can be checked against by the manufacturers in the form of allocation certificates, which will be furnished by the Bureau of Imports.

These allocation certificates will be issued to each manufacturer in two forms. Twenty-five per cent of the allocation will be limited to rubber from Central and South America. Seventy-five per cent of the allocation will be for rubber from any source. Manufacturers must utilize the full amount of their allocation before any allocation will be made them in succeeding periods.

Very truly yours,
FRED B. PETERSON, *Director.*

Explaining this new allocation program Charles T. Wilson, chairman of the Committee on Rubber and Kindred Products, has issued the following statement:

This plan of allocation differs from the preceding ones in certain respects, among them as follows:

(1) Variable percentages are allotted against the three classes of A, B and C, and the basis of allocation is predicated on different periods in lieu of 1917 consumption as heretofore employed.

(2) Rubber used in filling indirect Government orders will not be replaced. We are informed that so much difficulty has been experienced in tracing same to a Government order that the plan is not workable. We are also advised that nearly all Government orders for rubber goods consuming substantial quantities of rubber will be placed direct by the Government from now on, and this along with the increased allocation in class C, which class represents the character of goods largely used in indirect business, should simplify this problem.

(3) All figures of consumption upon which the allocation is predicated will be the amount of rubber used in other than Government business. Rubber used in direct Government orders heretofore has been fully replaced as it will be during the forthcoming period.

To such manufacturers who were not in receipt of an allocation covering the August-September period, we are informed by the War Trade Board that if they are entitled to one for the forthcoming quarter that they will receive in addition thereto a proportionately greater amount to cover the aforesaid two months.

Production Regulations

The War Industries Board has advised the War Service Committee of the Rubber Industry of the U. S. A. that the following limitations and regulations governing the production and sale of rubber products will be in effect for the period of October-November-December, 1918:

1. Manufacturers may produce during the period all classes of rubber products (except automobile casings and tubes under 6 inches) considered essential and for essential use, in accordance with rules and regulations that may be issued from time to time by order of the Priorities and Conservation Divisions of the War Industries Board, in quantity measured by rubber consumed equal to but not in excess of 100 per cent. of their April-May-June, 1918, rubber consumption in all products (except automobile casings and tubes under 6 inches), not including in said consumption rubber consumed in all products invoiced during said period on direct Government orders.

This limitation of 100 per cent. in production does not apply to Government business or essential medical or surgical goods which may be produced to meet requirements.

2. Tire manufacturers whose plants were in operation previous to January 1, 1917, may produce during the period, exclusive of direct Government orders, up to but not in excess of 1/12 of the automobile casings and tubes under 6 inches manufactured by them during the period from January, 1917, to June, 1918, inclusive (not including in said production automobile casings and tubes under 6 inches invoiced on direct Government order during the period January, 1918, to June, 1918), measured by rubber consumed and by number produced.

3. Tire manufacturers whose plants were not in operation previous to January 1, 1917, but were in operation previous to January 1, 1918, may produce during the period, exclusive of direct Government order, up to but not in excess of ¼ of the automobile casings and tubes under 6 inches manufactured by them during the

period January, to June, 1918 (not including in said production automobile casings and tubes under 6 inches invoiced on direct Government orders during the period January, to June, 1918), measured by rubber consumed and by number produced.

4. Tire manufacturers whose plants were not in operation previous to January 1, 1918, but were in operation previous to July 1, 1918, may produce each month during the period, exclusive of direct Government orders, a quantity equal to but not in excess of 50 per cent. of their average monthly production of automobile casings and tubes under 6 inches manufactured by them for the period of operation to August 1, 1918, measured by rubber consumed and by number produced.

5. Manufacturers producing more than one class of rubber products will be privileged to increase their consumption of rubber in any of the several classes of products listed as essential (except automobile casings and tubes under 6 inches), provided they make a corresponding decrease in the consumption of rubber in other classes so that their total consumption shall not be greater than herein provided for.

6. Manufacturers having raw materials on hand, and who are unable to operate their plants on basis of restricted output herein or hereafter provided, will be allowed a greater production to avoid so far as possible manufacturing loss in the liquidation of their inventories. All such cases should be reported direct to the Rubber Section of the War Industries Board, accompanied by a sworn statement of the quantity of rubber (specifying green or dry weight) of fabric in pounds (specifying types), and of other principal materials on hand. Tire manufacturers should state the minimum schedule of casings and tubes on which their plants can be operated without manufacturing loss.

Government Footwear Schedule

The Conservation Division, War Industries Board, issues the following schedule for manufacturers of rubber footwear:

Changes Effective.—The plan outlined in this schedule is to be fully in effect for all waterproof goods not later than Jan. 1, 1919, and for all canvas rubber soled shoes not later than Sept. 1, 1918.

1. Lasts.—No new lasts are to be introduced other than are necessitated by changes in leather footwear styles, or by Government requirements.

2. Third Quality Goods.—This line is to be limited to arctics and gum shoes. The manufacture of boots, lumbermen's and gaiters, fleece-lined gum shoes and arctics to be discontinued. The use of cashmerette or jersey cloth in this grade is to be discontinued.

3. Boots (a).—The manufacture of all duck boots of all kinds to be discontinued in so far as possible. (b) The manufacture of duck vamp boots, except in men's sizes only, to be discontinued. (c) The manufacture of regular dull finish (except in plain edge only) to be discontinued. (d) Leather insoles in all boots to be discontinued.

4. Hip Boots.—The manufacture of the following to be discontinued: (a) Duck vamp in lower grades than first. (b) Felt lining in duck vamp. (c) Women's. (d) So-called "fireman's." (e) Boys' and youths'.

5. Sporting Boots.—The manufacture of the following to be discontinued: (a) Duck vamp in lower grades than first. (b) Felt lining in duck vamp. (c) Women's. (d) So-called "fireman's." (e) Boys' and youths'."

6. Short Boots.—The manufacture of the following to be discontinued: (a) Men's, boys' and youths' pebble leg and bright finish in all styles. (b) Women's, misses' and children's in either pebble or plain. Each manufacturer to continue making one way only, as he may elect, either all pebble or all plain. (c) Women's, misses' and children's "Oyster."

7. Knee Boots.—The manufacture of this pattern to be discontinued.

8. Rolled Edge Arctics and Gaiters.—The manufacture of rolled edge arctics and gaiters to be confined to men's sizes only, all others to be discontinued.

9. All Rubber Gaiters.—The manufacture of all rubber gaiters to be discontinued, in the following grades: (a) Third quality. (b) Second quality, except as a substitute when cashmerette is not available.

10. One-buckle arctics.—The manufacture of the following one-buckle arctics to be discontinued: (a) Men's, boys' and youths' "Omaha" arctics and excluders. (b) Misses' and children's snow excluders. (c) Boys' and youths' jersey cloth arctics.

11. Gaiters and Lumbermen's.—The manufacture of the following to be discontinued: (a) Men's motormen's gaiters. (b) Men's, boys 'and youths' plow shoes. (c) Men's Ottawa (high lace lumbermen's duck vamp, gum upper). (d) Men's, boys' and youths' two-buckle captain. (e) Men's, boys' and youths' one-buckle corporal. (f) Men's, boys' and youths' gum ribbed Huron buckle and lace. (g) Men's, boys' and youths' "lumbermen's" snow excluders and arctics, one and two buckles. (h) Boys' and youths' duck lace Lumber King. (i) Men's, boys' and youths', women's, misses' and children's two-buckle jersey cloth gaiters.

12. Heights of Gaiters.—Buckle gaiters are not to be made higher than the present four-buckle height in men's, boys' and youths', and the present three-buckle height in women's, misses' and children's.

13. Jersey Cloth Gaiters and Alaskas.—The manufacture of jersey cloth gaiters and Alaskas to be restricted to first and extra quality.

14. Gum Shoes.—The manufacture of the following to be discontinued: (a) Men's one-strap (instep) sandals. (b) Men's, boys', youths', women's, misses' and children's plain sandals and self-acting sandals and "croquet" with fleece lining. (Storm pattern not included.) (c) Men's, boys', youths', women's, misses' and children's self-acting storm pattern. (d) Men's, boys', youths', women's, misses' and children's Russian rubbers. (e) Men's, boys', youths', women's, misses', and children's low vamp (not storm pattern) Alaskas. (f) Boys' and youths' Alaskas. (g) Boys' and youths', women's, misses' and children's clogs. (h) Youths' self-acting sandals. (i) All self-acting Alaskas, both storm and low pattern.

15. Catalogues, price lists, etc.—All 1919 catalogues are to be condensed and made as simple as practicable, having in mind the necessity for conserving paper.

16. Flour or starch finish.—The use of flour, starch, or similar finish is to be discontinued, except that skirts of top boots only may be treated with whiting or something similar for convenience of manipulation in manufacture when necessary.

17. Varnish.—(a) Cashmerette or so-called heavy arctics or gaiters are not to be varnished. (b) Canvas rubber-soled shoes are not to be varnished.

18. Cotton net and sheeting linings.—(a) The use of dyed linings in gum shoes to be discontinued. (b) The use of dyed lining in all boots is to be discontinued, except that women's, misses', and children's boots may carry black fleece lining. (c) The use of dyed lining in lumbermen's, except in fleece lined, is to be discontinued.

19. Packing—Cartons.—The packing in cartons of the following goods, with the exceptions noted, is to be discontinued, and packing is to be in bulk: (a) All first quality and extra heavy goods and jersey cloth arctics and gaiters except for first quality gum-shoe specialties—specialties include jersey cloth Alaskas. (b) All second quality goods, except women's gum shoes. (c) All third quality goods. (d) Canvas rubber soled shoes in cheap grades, corresponding to Vims, when made with black or red sole. (e) Factory damaged canvas rubber soled shoes in grades corresponding to Champions and cheaper grades. (f) All factory damaged waterproof goods.

Tissue paper.—The use of tissue paper with canvas rubber-soled shoes when packed in cartons in grades corresponding to Yachting, Campfire, Champion and Vim (heeled goods only excepted) is to be discontinued. Heeled canvas rubber-sole shoes may be packed with tissue only when necessary to keep them in proper condition. With gum shoes only sufficient tissue paper is to be used to keep in proper condition.

20. Caustic soda.—The use of caustic soda in the manufacture of rubber footwear of all types is to be discontinued at once.

Trade Information Exchange

Technical Rubber Course

Inquiry No. 55.—Kindly advise when the "Technical Course in Rubber Manufacture," by Professor H. E. Simmons, which you published serially in THE RUBBER AGE AND TIRE NEWS, will be put out in book form?

Answer.—We are preparing this book for publication, but it is difficult to say when it will be ready for distribution owing to prevailing conditions.

Tire Rebuilding Equipment

Inquiry No. 56.—We are going to specialize in the rebuilding of used tires and would like you to put us in touch with manufacturers of machinery for this purpose.

Answer.—The following concerns should be able to supply you the equipment you need: The C. D. Hibbs Co., Fort Worth, Texas; the Akron Rubber Mold & Machine Co., Akron, Ohio; the Biggs Boiler Works Co., Akron, Ohio; the Williams Foundry & Machine Co., Akron, Ohio, and Charles E. Miller, Anderson, Ind.

The C. D. Hibbs Rubber Co., Fort Worth, Texas, also makes a specialty of rebuilding materials, including reclaimed fabric, which is said to give good results and save from 50 to 75 per cent of fabric cost. It is also claimed that Hibbs reclaimed fabric can be more easily and rapidly worked than new material, as it already has the core shape. The Hibbs company also makes machinery for reclaiming fabrics.

Flat Braided Wire

Inquiry No. 57.—Please give us the name and address of a concern that can supply flat braided wire suitable for building straight-side tire beads.

Answer.—You can get this type of woven wire from the National Standard Co., Niles, Mich.

American Chemical Society Rubber Section

By Dr. John B. Tuttle

The Rubber Section of the American Chemical Society held its annual meeting at the Hotel Statler, Cleveland, Ohio, on Sept. 11-12. Dr. L. E. Weber, the Chairman of the Section, who was to have presided at the meeting, was prevented by illness from being present, and in his absence, George Oenslager, of The B. F. Goodrich Company, a member of the Executive Committee of the Section, took his place.

When Mr. Oenslager, chief chemist of The B. F. Goodrich Company, called the meeting to order there were about sixty members and guests present, with others arriving every few minutes until over eighty were present.

The program of the meeting was as follows:

1. A. H. Smith and S. W. Epstein. The Determination of Lamp Black.
2. Laboratory Methods for Determining the Degree of Vulcanization. Discussion opened by D. F. Craner.
3. The Fruit Jar Ring Situation. Discussion opened by Chas P. Fox.
4. G. D. Kratz and Arthur H. Flower. Vulcanization of Rubber at Constant and by a Series of Increasing Temperatures.
5. Report of the Committee on the Poisonous Nature of some Accelerators and Precautions Regarding their Use. Discussion opened by R. D. Earle.
6. Report of the Executive Committee. L. E. Weber, Chairman.

A. H. Smith, in presenting his paper, brought out the fact that while the Determination of Free Carbon was in itself not often of real value, it was of considerable importance when the percentage of rubber present was determined by subtracting the sum of the constituents of the compound other than rubber, from 100 per cent., and calling this difference rubber. This is the procedure followed at the present time by the Government in analyzing solid and pneumatic tires, and since many of them contain free carbon, it is essential that an accurate method be developed. The method is, of course, capable of wider application than just tires.

Determination of Free Carbon

After reviewing the faults in the methods already published Mr. Smith outlined his method which, briefly, is as follows:

Extract a 1-gm. sample for six hours with acetone and then for three hours longer with chloroform of carbon bisulphide. Transfer the sample to a 250 cc. beaker and heat on the steam bath until it no longer smells of chloroform. Add a few cc. of hot concentrated nitric acid and allow to stand in the cold for about ten minutes. Add 50 cc. more of hot concentrated nitric acid, taking care to wash down the sides of the beaker. Heat on the steam bath for about one hour or until the disappearance of all bubbles or foam from the surface. The liquid, while hot, is poured into a gooch crucible containing a very thin pad of ignited asbestos. Filter by applying gentle suction. Wash well with hot concentrated nitric acid. *Empty the filter flask.* Wash with acetone until the filtrate is colorless between each addition of acetone, washing it with one or two cc. of benzol. Wash well with a hot 15 per cent. solution of sodium hydroxide. Test for the presence of lead by running some warm ammonium acetate solution, containing an excess of ammonium hydroxide, through the gooch into a solution of sodium chromate. If a yellow precipitate forms, the pad must be washed with the ammonium acetate solution until the washings no longer precipitate the sodium chromate solution. The residue is now washed well with warm 5 per cent. hydrochloric acid solution. Remove the crucible from the funnel, taking care that the outside is clean, and dry in an air bath for 1½ hours at 150° C. Weigh. Burn off the carbon at a dull red heat. Reweigh. The difference in weight represents approximately 105 per cent. of the carbon originally present in the form of lampblack or gas black. It is recommended that 0.5 gm. samples be taken for compounds containing over 10 per cent. of free carbon and 1 gm. samples be taken for compounds containing less than this amount.

The principal sources of error in this method are the attack on the carbon by the nitric acid; the incomplete removal of organic matter; and the presence of certain mineral constituents. Their experience has been that assuming the ignition loss to be 105 per cent. of the carbon, a fairly accurate calculation can be made.

JAR RING FAULTS
TOO THIN
PERISHED
WEAK.
DIRTY.
JAR RING INSPECTION IS A FOOD SAVER: PREVENTS LOSS OF CANNED FOOD. POOR RINGS ARE SLACKERS. "RUN THEM IN."
CLEVELAND OHIO IS A JAR RING TOWN ☞ SALE OF INFERIOR RINGS PROHIBITED.
JAR RINGS-BRANDS-1918.
JAR RINGS
SOLD IN CLEVELAND-OHIO.
80 BRANDS. 3 GRADES.
BAD 10 PER CENT
GOOD. 70 " "
DOUBTFUL 20 " "
RETAIL PRICE PER DOZ. 8-15¢
PRICE NO GUIDE TO QUALITY.
QUICK TESTS FOR QUALITY:
PINCH TEST.
TWIST TEST.
ONCEOVER TEST.
PULL TEST.

JAR RING INVESTIGATION DISPLAY

This paper was then thrown open for discussion.

W. W. Evans stated that they had been trying this method at the laboratories of The B. F. Goodrich Company for some time, and he wanted to strongly recommend it. Using the factor of 105, the results were sufficiently close for accurate work.

George Oenslager said that by using a 5 per cent. solution of nitric acid, one can get all of the rubber in solution, but it is a matter of days or even weeks. His examination of the water solution found oxalic acid as one of the products of decomposition.

Determining the Degree of Vulcanization

Donald Cranor, of the Lee Tire & Rubber Company, then presented his paper on "Laboratory Methods for Determining the Degree of Vulcanization." In this he drew attention to the fact that chemical methods of analysis are now more accurate than physical, and had been further standardized. It was his opinion, therefore, that it was better to follow the progress of vulcanization by means of chemical tests of the combined sulphur, than trust to tensile and elongation tests. He showed by data from actual tests that frequently one could

change slightly the time or temperature of vulcanization, or both, without the tensile tests showing this change, whereas it could always be detected by chemical means. He proposed, therefore, that having established a standard for any given compound, in routine work one could

TORSION TEST

follow the cure best by determining the combined sulphur.

Mr. Cranor emphasized his point by showing that a compound containing lead as an accelerator, would not show its best physical tests until the combined sulphur was about 2.8 to 3.0 per cent. of the rubber. When lead is replaced by an organic accelerator in very thin sheets a fully cured stock is obtained in three minutes, although the combined sulphur was between 1.5 and 2.0 per cent. This seemed to show that vulcanization was something further than mere combination of rubber and sulphur.

The Fruit Jar Ring Situation

The chairman then called upon Chas. P. Fox, of the Municipal Laboratory, Dayton, Ohio, to open the discussion of the Fruit Jar Ring Situation. Mr. Fox, after explaining the reasons why the matter came to his particular attention, outlined a series of simple experimental tests, such as could be made by any purchaser. These tests are: the stretch test; the torsion test; and the pinch test. By means of these, he claimed that one could easily detect the bad rings.

Mr. Fox drew particular attention to the fact that price was not necessarily a criterion of quality, and that good rings had frequently been bought for less than the cost of some bad ones.

J. B. Tuttle in discussing Mr. Fox's statements, said in part: "It is a well known fact that the loss in food during the Summer of 1917 was very great, and that a very large part of this can be directly traced to poor fruit jar rings. Under present conditions, when food is such a vital question, a manufacturer who deliberately marketed a fruit jar ring which he knew would not give perfect service, was to no uncertain extent giving aid to the enemy. It is no mere matter of price, for the experience of the past year has shown that the American people has without hesitation assumed the costs of the war, not only from the Government's expenditures, but the higher prices for practically every commodity in daily use. To argue that an extra cent per ring would not be paid to assure the safety of one hundred times its value in food, is pure nonsense. It seems to me that this section could do a very patriotic service in forcing this matter to the thoughtful attention of the nation."

John R. McGregor, of the Picher-Eagle Lead Company, stated that it was his impression that the Canadian Government was doing some work along the lines of establishing a standard of quality, and the elimination of the inferior rings.

J. B. Brittain, of the Firestone Tire & Rubber Company, drew attention to the fact that in canning fruits it was essential that properly fitting lids be used so as to permit the rubber ring to function properly.

Mr. Warner, chief chemist of the Miller Rubber Company, pointed out that the greatest difficulty in the whole matter was tracing the bad

STRETCH TEST

rings back to the maker. It is a well known fact that these rings are marketed through jobbers, or wholesalers, and that these people have their own brands and styles of packing. Thus one manufacturer may be packing the same ring under a dozen or more different brands.

As a result of the discussion the following resolution was adopted: "That the chairman of the Section shall appoint a committee of three or more members to conduct a campaign of education among the consumers for the purpose of having them exercise more care and thought in their purchases; and among the manufacturers and wholesalers to eliminate bad jar rings from the market."

In the discussion of the resolution, it was brought out that the interests of public health required oversight to prevent injurious effects from rubber articles such as babies' toys, nipples, etc., especially those containing lead and antimony. Dr. Frederic Dan-

PINCH TEST

nerth, consulting chemist, Newark, N. J., urged that the jar ring committee be enlarged to take care of this subject, but the consensus of opinion was that the two subjects should not be mixed up, and the matter was left to the Executive Committee with power to act.

The Kratz and Flower Paper

G. D. Kratz, of the Falls Rubber Company, then read the paper on "Vulcanization of Rubber at Constant and by a Series of Increasing Temperatures," by G. D. Kratz and Arthur H. Flower, of which the following is an abstract, prepared by the authors:

The physical characteristics of a rubber-sulphur mixture containing 5 per cent. total sulphur vulcanized at a constant temperature of 298° F. were compared with those obtained when the mixture was vulcanized to the same point by a series of increasing temperatures. This series of increasing temperatures was calculated from previously established values for the rate of vulcanization at various constant temperatures. By applying these results, it was found possible to calculate a series of increasing temperatures such that a unit amount of sulphur combined with the rubber in unit time throughout the period of vulcanization, i. e., the vulcanization-time curve was reduced to a straight line. Vulcanization by the latter method was found to insure physical properties superior to those obtained at constant temperature, particularly at vulcanization coefficients in excess of 2.8. As but a small portion of the sulphur combined with the rubber in

the latter stages of the vulcanization, the continued application of heat necessary to increase the coefficient above this point was found to be detrimental to the quality of the final product. In order to procure maximum physical properties at constant temperature sulphur must be present in the mixture in such an amount that its active mass is not decreased to an extent which will slow up the rate of reaction before the desired vulcanization coefficient is attained. Vulcanization coefficients previously recommended by others are indicated to be too high and certainly should not be greater than 2.8 for plantation hevea rubber. It is concluded that it is dangerous to evaluate samples of vulcanized rubber solely on the basis of their vulcanization coefficients, unless the history of the vulcanization is fully known.

Mr. Kratz presented his subject with such detail that there was scarcely room for discussion. As Chairman Oenslager said, it was felt that the matter warranted close study, and the publication of Kratz and Flower's paper in full will be eagerly awaited.

Organic Accelerators Poisons Report

The report of the Committee on the "Poisonous Properties of Organic Accelerators" was then presented to the meeting. In the absence of the Chairman of the Committee, Dr. Earle, the report was read by the Secretary. This report covers the precautions to be taken in using aniline; hexamethylene tetramine; paraphenylenediamine; paranitroso dimethylaniline and thiocarbanilide.

The report was accepted, and referred to the Council of the American Chemical Society for approval for publication.

Executive Committee's Report

The report of the Executive Committee was then read and on motion adopted. In this report Dr. Weber stated that owing to pressure of work he had been obliged to submit his resignation as Chairman of the Section to the Secretary of the Society. A vote of thanks was then passed in appreciation of Dr. Weber's efforts in behalf of the Rubber Section.

An announcement was made, calling attention of the authors to the fact that all papers read before the American Chemical Society, were the property of that Society, until released for publication elsewhere. This means that the Chemical Society reserves the right of first publication in its own journals.

New Officers Elected

The meeting then proceeded to the election of officers for the coming year. It was explained that since we were only a Section, we had no authority to elect our own officers, but the President and Secretary of the Chemical Society had agreed to appoint such officers as might be chosen by the Section. The election resulted as follows: Chairman, John B. Tuttle, Firestone Tire and Rubber Company, Akron, Ohio; Secretary, Arnold H. Smith, Bureau of Standards, Washington, D. C. Before adjourning the vote was taken as to the desirability of having an informal conference on the following day, and when a number expressed their desire for this, the Chairman announced that a conference would be held on September 12, at the Statler at 10 a. m.

Second Day Conference

At this second day's conference J. B. Tuttle presided, and A. H. Smith acted as Secretary. Considerable time was given over to the further discussions of the papers presented on the previous day.

The Chairman announced the following for the Committee on the Fruit Jar Ring Situation: L. J. Plumb, Chairman, U. S. Rubber Reclaiming Company, West 42d Street, New York City; C. P. Fox, Consulting Chemist, Cleveland, Ohio; A. H. Smith, Assistant Chemist, Bureau of Standards, Washington, D. C., and George Oenslager, Chief Chemist, the B. F. Goodrich Company, Akron, Ohio. A fifth member of this Committee will be appointed later, from the Technical Staff of Boston Woven Hose and Rubber Company, Cambridge, Mass.

In continuation of discussions on Matters of Public Health, it was felt that there was still work to be done on the subject of Industrial Poisons in the Rubber Factories, and that this work could be linked with the question of Public Health and the Rubber Industry. The Chairman was, therefore, instructed to appoint a Committee to investigate this subject.

It was brought out in the meeting, that some years ago the old Rubber Section had a Committee for the standardizing of methods of physical testing of rubber. No report was ever made by this Committee, but is known that considerable data were gathered, and that a report could be prepared on rather short notice. The Chairman was, therefore, instructed to appoint a Committee to take up this matter instructing them to prepare tests, not only for insulated wire and mechanical goods, but also for hard rubber testing, such as submarine battery jars, etc. It was also thought that a method for the determination of specific gravity of reclaimed rubber would be highly desirable. The Chairman promised to take this matter up with the Committee.

Among those present at the conference were the following:

John R. MacGregor, Eagle-Picher Lead Co.; L. J. Plumb, U. S. Rubber Reclaiming Co.; Frederic Dannerth, consulting chemist; R. T. Stokes, Sears, Roebuck & Co.; G. D. Kratz, Falls Rubber Co.; Cole Coolidge, Falls Rubber Co.; Arthur H. Flower, Falls Rubber Co.; Chas. P. Fox, Municipal Laboratory, Dayton, Ohio; W. D. Pardoe, Thermoid Rubber Co.; Frank P. Brock, Redmond Chemical Products Co.; D. F. Cranor, Lee Tire & Rubber Co.; A. H. Smith, Bureau of Standards; W. H. Hoyt, Eagle-Picher Lead Co.; George P. Loomis, The B. F. Goodrich Co.; V. A. Cosler, The B. F. Goodrich Co.; W. L. Smith, The B. F. Goodrich Co.; Chas. M. Knight, Municipal University of Akron; M. M. Harrison, Miller Rubber Co.; R. J. Bonstein, Kelly-Springfield Tire Co.; C. F. Devine, Habirshaw Elec. Cable Co.; John Young, Firestone Tire & Rubber Co.; J. B. Brittain, Firestone Tire & Rubber Co.; E. W. Oldham, Firestone Tire & Rubber Co.; A. B. Merrill, The B. F. Goodrich Co.; C. W. Kohler, The B. F. Goodrich Co.

P. R. Manahan, Rubber Insulated Metals Co.; E. H. Grafton, Manhattan Rubber Mfg. Co.; E. R. Waite, Goodyear Tire & Rubber Co.; H. B. Pushee, General Tire & Rubber Co.; C. A. Norris, Mechanical Rubber Co.; A. C. Peterjohn, Mechanical Rubber Co.; H. M. Koelliker, Mechanical Rubber Co.; J. D. Morron, Mechanical Rubber Co.; W. H. Cope, Lee Tire & Rubber Co.; W. W. Evans, The B. F. Goodrich Co.; H. H. Lowenstein, Chemical Warfare Service; L. J. D. Healy, Federal Rubber Co.; Lieut. R. M. Gage, Gas Defense; G. Lloyd Allison, The B. F. Goodrich Co.; G. C. Ashman, Bradley Polytechnic Institute; Helen C. Gilette, Prest-o-lite Co.; Zenzo Komishi, Osaka Shasen Kaisha; C. W. Howlett, Kokomo Rubber Co.; B. A. Allison, Barber Asphalt Co.; W. S. Kimley, Hewitt Rubber Co.

H. A. Hoffman, The B. F. Goodrich Co.; P. H. Henkel, Continental Rubber Works; W. Scott, Goodyear Tire & Rubber Co.; W. J. Kelly, Goodyear Tire & Rubber Co.; I. Kimishima, Imperial University of Japan; J. H. Link, Faultless Rubber Co.; R. L. Sibley, Goodyear Tire & Rubber Co.; M. M. Kahn, Kelly-Springfield Tire Co.; A. H. Petersen, Kelly-Springfield Tire Co.; H. E. Simmons, Municipal University of Akron; C. W. Sanderson, Fisk Rubber Co.; E. G. Marshall, Fisk Rubber Co.; G. S. J. Dalton, Mansfield Tire Co.; K. J. Thompson, Columbiana Tire & Rubber Co.; George Oenslager, The B. F. Goodrich Co.; John B. Tuttle, Firestone Tire & Rubber Co.

Chromogenic Organisms in Dry Raw Rubber*

By B. J. Eaton

Complaints have been received from time to time by managers of rubber estates, from brokers or agents in London or other rubber-buying centers, that rubber has been received from the estate which is affected with "spot disease," although according to the manager in each case, the rubber left the estate perfectly dry and free from "spot disease."

Several instances of this have been brought to the notice of the Department of Agriculture, and when visiting an estate about a month ago the writer was asked by the manager to give a written opinion as to the possibility of "spot diseases" affecting the rubber after it had left the estate in a perfectly dry, clean condition, since, in this particular case, the estate rubber was sent to Malacca and shipped from that port. It is well-known that transport of goods, etc., at Malacca from the shore to the ship has to be carried out in lighters or sampans, and, especially in rough weather, the sea water may come into contact with cases of rubber. From previous experience the opinion was given that the development of "spot disease," due to the growth of chromogenic organisms in the rubber, owing to the rubber becoming wetted, either by rain or sea water, was highly probable.

Experimental

In order to prove definitely, however, that such development of chromogenic organisms can and does occur in perfectly dry, clean pale crepe, owing to the rubber coming into contact with water subsequently, a piece of thin crepe was dipped into water for above five minutes, taken out and thoroughly shaken to remove as much of the adhering surface moisture as possible, and then rolled into a cylinder by hand in order to retain the moisture and imitate the conditions existing in a case of such rubber.

After about ten days considerable development of chromogenic organisms occurred and the rubber is now colored with patches of orange, blue, and yellow.

A second piece of the same crepe was allowed to soak for several days in water and then removed, shaken, and rolled in a similar manner, when the same development of chromogenic organisms took place.

These experiments prove definitely that rubber may leave an estate in a perfect condition and subsequently arrive home in a bad condition, due to carelessness or accidents at the shipping port. It is even possible that such chromogenic organisms or their spores, present in dry rubber, may survive the voyage of four to six weeks, and may develop after the rubber reaches port in Europe or America, if the rubber subsequently becomes damp. It would be of interest if rubber chemists or other scientific officials in London or elsewhere would repeat these experiments and report as to the results. In winter the rubber, after soaking in water, would probably require incubation at about 85 deg. F. to correspond with our shade temperature here, otherwise the organisms may not develop at a lower temperature.

It is also interesting to note that dry, well-smoked rubber sheets may develop mildew on the surface for similar reasons, while low grade rubber may ferment and become tacky. With regard to the development of chromogenic organisms in rubber, as shown by the development of pigment, several interesting observations have been made recently by the writer, while experimenting on the influence of the rate of drying of rubber on the rate of vulcanization.

In the first place, no development of pigment occurred in "slab" rubber, i. e., slightly pressed coagulum, until the slab is cut open later, when pigment develops on the surface after a few days. Secondly, if sheet rubber is rolled into a cylinder straight from the sheeting machine, no development of pigment takes place till the sheet is cut open, when pigment develops on the cut surface. When wet this crepe, on the other hand, is rolled into a cylinder, there is invariably a great production of pigment due to the growth of these chromogenic organisms. It would appear from these experiments that the presence of air is therefore necessary for the development of the organisms or for the formation of the pigments, and this is excluded in rolled sheet or "slab" rubber.

Reducing Moisture Content

Also it is probable that an excess of moisture may retard or prevent the formation of the pigment, and that the pigment forms later when the moisture content is somewhat reduced. Another interesting fact observed is that the pigment, due to the growth of the organisms, develops far more readily in thin crepe which is converted to thick or blanket crepe while still wet, than in original thick crepe, which has not first been rolled thin, even though the original thick crepe may have a higher moisture content when freshly manufactured than the blanketed thin crepe. This is due to the fact that the original thick crepe, being softer and probably more porous, loses its moisture at a much greater rate than thin crepe which is blanketed while still wet, due to the hardness of the latter when rolled thick. Owing to the faster rate of drying of the original thick crepe, the moisture content is reduced to too low an amount to admit of a marked development of the organisms which cause the pigmentation of the rubber.

It also appears probable, although the problem has not yet been studied sufficiently, that these organisms act upon the protein or protein decomposition products and destroy the accelerating agent formed in the rubber during the first six or seven days of drying or produce a further cleavage of these substances. In any case no further change causing acceleration in rate of cure takes place in thin crepe which is rolled into a cylinder while still wet, that is, immediately it is taken from the machine, while a slight acceleration in rate of cure is produced by blanketing similar thin wet crepe. This effect again confirms the idea that the decomposition of the proteins producing acceleration in rate of cure is due to anaerobic processes, which do not take place in the rolled crepe, owing to the comparatively large amount of air between the layers of crepe when rolled together in a cylinder by hand, while a slight but definite acceleration in rate of cure is produced by blanketing thin wet crepe.

It is hoped that this note will be of use to planters who may receive complaints as to "spotting" of rubber from their brokers at home. As far as the writer is aware, no observations on the spotting of dry rubber owing to its becoming damp subsequently, have been published.

* From *Agricultural Bulletin*, Federal Malay States.

Book Review

Efficiency Methods. By M. McKillop and A. D. McKillop, 215 pages, illustrated. Published by D. Van Nostrand, 25 Park Place, New York City.

This volume is largely devoted to discussions of what the different leaders in efficiency, functional management and motion-study have said or advocated. There are chapters on management, the various kinds of standardization, remuneration, welfare work, scientific management and the unions, scientific management and education, and the installation of modern efficiency methods.

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THE RUBBER AGE AND TIRE NEWS

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ADVERTISING MANAGER

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Production Limitations and Regulations

Limitations and regulations governing the production of rubber goods have been made public by the War Industries Board through the War Service Committee of the Rubber Industry. These limitations and regulations are published elsewhere in this issue and appear to be the result of a closer study and better understanding of conditions than was the case with their predecessors. Certainly they are more equitable, for they classify tire manufacturers in a manner that overcomes the principal objection to the tire production curtailment plan that went into force August 1, and comes to an end with this month.

The classification of tire manufacturers for the purposes of the new output curtailment plan is based on the length of time the concerns have been engaged in the actual manufacture of tires.

All tires and tubes of six inches or more in diameter and tubes invoiced on direct Government orders are exempt from the new regulations, in figuring both normal and restricted productions.

Manufacturers of tires are divided into three classes. The first class is made up of manufacturers whose plants were in operation prior to 1917; plants that went into operation during 1917 are placed in the second class; the third class comprises manufacturers whose plants started operation in the first half of the present year.

The new regulations limit the output of tires for the quarter, October-December of 1918.

Manufacturers of the first class are restricted for the quarter to one-twelfth of their output during the eighteen-month period from January, 1917, to June, 1918, inclusive. In other words, manufacturers of this class who averaged 10,000 casings and tubes per day during the January, 1917-June, 1918 period, may only produce 5,000 tires a day during the months of October, November and December of this year.

Manufacturers of the second class may produce during the quarter not in excess of one-fourth of the number of casings and tubes manufactured by them during the first six months of 1918; which means that manufacturers of this class who averaged 1,000 tires a day during the first half of this year may make 500 tires a day during the next three months.

Tire factories in the third class may produce each month during the October-December quarter of this year a number of tires equal, but not in excess of 50 per cent of their average monthly output for the period of operation to August 1, 1918. To come down to figures, a manufacturer who started production May 1 of this year, and averaged 100 tires a day during May, June and July, may make 50 tires a day during October, November and December.

An important feature of the new plan is that it makes a special concession in favor of small manufacturers who have raw materials on hand and who are unable to operate their plants on the basis of restricted output. Manufacturers in this position will be permitted a greater production than they would regularly be allowed under the general classification; an arrangement which will help these manufacturers to avoid manufacturing loss in the liquidation of their inventories.

It should be distinctly understood that no restriction of any kind has been placed on the manufacture of solid tires regardless of their use or on pneumatic tires sold on direct Government order.

The crude rubber allocation plan for the last quarter of this year is based, like its predecessors, on a total annual importation of 100,000 tons of rubber. In other respects, however, it differs from previous programs.

In the first place, the consumption of crude rubber will now be considered under three classes, and allocations, instead of being based on 1917 consumption, will be predicated on different periods arranged to make the restrictions more equitable to those manufacturers who were at a marked disadvantage under the rules set down in previous plans.

Another feature of the new plan is that rubber used in filling indirect Government contracts will no longer be replaced and will have to be taken from the manufacturers' regular allocations. The plan of replacing rubber used in this way was found to be impracticable on account of the difficulty of tracing its use for actual Government needs. However, this is not likely to work great hardship for it is understood that all contracts requiring considerable amounts of crude rubber from now on will be placed direct by the Government. All rubber consumed in filling direct Government orders will, of course, be replaced and the consumption figures which will be used as basis for allocations will be for rubber used for other than Government work.

It is further understood that manufacturers who received no allocation for the August-September period now ending, and are entitled to one for the next quarter, will receive, in addition to their October-December allocation, a proportionally greater amount of rubber to compensate for the allocation they did not get during the sixty-day program now coming to an end. In other words, manufacturers who have started production since January 1, 1918, and who received no rubber during the sixty days August-September, will now be allowed a proportionately larger quantity to compensate them for this loss.

Classification of Scrap Rubber

The following standard of packing has been approved by the Scrap Rubber Division of the National Association of Waste Material Dealers and has been approved by the executive committee of this association. It will be effective until July 1, 1919, at which date a new circular will be issued. All goods bought or sold under the following specifications are understood to consist only of scrap of domestic or Canadian manufacture, unless otherwise stipulated. All grades of scrap rubber shall be bought and paid for net weight, mill weights to govern, and no allowance for bagging or covering of any kind shall be made, nor shall these be returned to the seller:

Delivery

A.—All shipments of scrap rubber must be contained in bags, bales, bundles or other suitable containers, and if shipped loose a charge of 1-4 cent per pound shall be made for extra handling, except automobile tires and railroad hose which may be shipped loose.

B.—1. A carload unless otherwise specified shall consist of fifteen tons. 2. A ton when applied to domestic stock shall mean 2,000 pounds. A ton when applied to foreign stock shall mean 2,240 pounds.

C.—Shipments direct to mill shall consist of not less than 2,000 pounds. Otherwise a charge of 1-4 per cent per pound shall be made.

D.—All scrap rubber of foreign manufacture shall be bought C.I.F. port of entry as per weight determined by sworn weigher's certificate, seller to bear expense of weighing, and shall be subject to same conditions as govern purchases of domestic manufacture.

Rejections

E.—Upon his request all rejections shall be returnable to the seller within thirty days from the time notice of rejection is received by him and upon payment by him of ½ cent per pound to cover cost of sorting and rebaling. If shipping instructions are not furnished within the above mentioned thirty days the purchaser shall be at liberty to make such disposition of the material as he may see fit. The above does not apply if rejected material is purchased by the buyer.

F.—When shipments are made direct to a mill each grade of scrap rubber must be packed separately, and if not so packed a handling charge of ½ cent per pound will be made.

G.—All scrap rubber must be dry and free from dirt. All scrap received wet may be dried by the buyer, such shipments to be paid for on the dry weight as ascertained.

H.—A purchase contract shall not be considered filled until the full quantity within 2½ per cent more or less net weight shall have been received, any rejections to be replaced within thirty days of the date of notice of rejection to the shipper.

Embargo

I.—If through embargo a delivery cannot be made at the time specified the contract shall remain valid and shall be completed immediately on the lifting of the embargo, and terms of said contract shall not be changed. Notice of embargo must be served by seller.

(Note—Code words appear in italics.)

1.—RUBBER BOOTS AND SHOES (*Acre*). The deliveries of rubber boots and shoes must consist of rubber boots and shoes of domestic or Canadian manufacture. Red, white, tan and fancy colored shoes are not a good delivery. They must be dry and free from dirt. All cloth-top shoes, trimmed or untrimmed, and soles or heels of rubber boots and shoes from which the uppers have been removed shall not be accepted as a good delivery.

2.—TRIMMED ARCTICS (*Band*). Must be closely trimmed and free of leather.

2.—(a)—UNTRIMMED ARCTICS. Must be free from leather.

3.—TRIMMED TENNIS SHOES (*Clam*). Must be black; closely trimmed; free from molded soles and leather.

3.—(a)—UNTRIMMED TENNIS SHOES. Must be free from leather and molded soles.

4.—STANDARD MIXED GRAY AUTO TIRES (*Dirk*). Must be free from the following: All jet black tires, unguaranteed tires, heavy beaded tires, non-pneumatic or filled tires. Must not contain any hard, oxidized, burnt, single tube, motorcycle stripped or badly worn tires, nor tires containing leather or metal.

4.—(a)—JET BLACK AUTO TIRES. Must be free from all gray tires, unguaranteed tires, heavy beaded tires, non-pneumatic or filled tires. Must not contain any hard, oxidized, burnt, single tube, motorcycle, stripped or badly worn tires, nor tires containing leather or metal.

5.—UNGUARANTEED TIRES (*Earl*). Must be free from heavy beaded tires, hard or oxidized, stripped, badly worn, and tires with leather or metal.

6.—HEAVY BEADED TIRES (*Farm*). Must be free from hard or oxidized tires, stripped, badly worn and tires with leather and metal.

7.—BADLY WORN TIRES (*Game*). Must be free from hard or oxidized tires, heavy beaded and tires with leather and iron. A reasonable proportion of the tread must be on the tires.

7.—(a)—STRIPPED TIRES. Must be free from hard or oxidized tires, heavy beaded and tires with leather and iron.

8.—NO. 1 GRAY AUTO TIRE PEELINGS (*Hawk*). Must be free from cloth, metal, leather and jet black peelings.

8.—(a)—NO. 1 JET BLACK PEELINGS. Must be free from gray peelings, cloth, metal and leather.

9.—NO. 2 GRAY AUTO TIRE PEELINGS (*Iced*). Must consist of peelings from auto tire treads only and must be free from leather, metal, stripped auto tire fabric and jet black peelings.

9.—(a)—NO. 2. JET BLACK PEELINGS. Must consist of peelings from auto tire treads only and be free from leather, metal, stripped auto tire fabric and gray peelings.

10.—BICYCLE TIRES (*Jade*). Must be free from hard or oxidized tires, wire and beaded tires.

11.—SOLID WAGON AND CAB TIRES (*Kite*). Must be free from metal and baby carriage tires.

12.—SOLID MOTOR TRUCK TIRES (*Lamp*). Tires must be 2½ inches or over in diameter. Must be free from metal and tires with hard bases and fibre bases.

13.—AIRBRAKE HOSE (*Mask*). Must be free from metal, hard or oxidized hose and steam hose.

14.—GARDEN HOSE (*Nail*). Must be ½ inch or over in diameter and free from metal, rags, rope and cotton covered hose.

15.—LARGE HOSE (*Oven*). Large hose must be one inch or over in diameter. Must be free from metal, rags, rope, hard or oxidized hose and all cotton covered hose.

16.—COTTON COVERED FIRE HOSE (*Park*). Must be rubber lined, and free from hard or oxidized hose, double packeted and extra heavy single jacketed hose, and metal.

17.—NO. 1 AUTO INNER TUBES (*Quiz*). Must be strictly elastic floating tubes, free from crusty tubes, cloth, metal, patches and valve seats.

18.—NO. 2 AUTO INNER TUBES (*Race*). (Known as Compounded Tubes.) Must be standard tubes, free from crusty tubes, cloth and metal.

19.—NO. 1 BICYCLE INNER TUBES (*Salt*). Must be strictly elastic floating tubes, free from rusty tubes, cloth, metal, and valve seats.

20.—NO. 2 BICYCLE INNER TUBES (*Train*). (Known as Compounded Inner Tubes.) Must be standard tubes, free from crusty tubes, cloth and metal.

21.—RED AUTO INNER TUBES (*Utes*). Must be standard tubes, free from punchings, crusty tubes, cloth, metal and black patches.

22.—WHITE AUTO INNER TUBES. Must be standard tubes, free from crusty tubes, cloth, hard metal, and patches other than white.

23.—WHITE BICYCLE INNER TUBES. Must be standard tubes, free from crusty tubes, cloth, hard metal, and patches other than white.

24.—NO. 1 WHITE RUBBER (*Vase*). Must consist of strictly clean white soft druggists' sundries and must be free from cloth and metal.

25.—NO. 2 WHITE RUBBER (*Ward*). Must consist of white horseshoe pads, white toys, white mechanical goods, and to be free from cloth, metal, crusty, hard or oxidized material.

26.—NO. 3 WHITE RUBBER (*Ware*). Must consist of painted white rubber balls or toys from which the paint has been removed, and to be free from cloth, painted wainscoting, metal and hard or oxidized rubber.

NO. 4 WHITE RUBBER. Must consist of white jar rings and be free from cloth, metal and hard or oxidized rubber.

27.—WHITE WRINGER RUBBER (*Wren*). Must be strictly white soft rubber, free from yellow wringer rubber, hard or oxidized wringer rubber, cloth or metal.

28.—YELLOW WRINGER RUBBER (*Xray*). Must be free from cloth, metal and hard rubber.

29.—MIXED BLACK RUBBER (*Yoke*). Must be free from cloth, metal, crusty, hard or oxidized material, packing, stripped matting, tiling, baby carriage tires and molded soles.

30.—MATTING AND PACKING (*Zero*). Must be free from Garlock, Crandall and piston packing, belting and similar material, metal and hard or oxidized stock.

31.—NO. 1 RED RUBBER (*Yeast*). Must consist of soft red druggists' sundries, free from maroon, chocolate and other dark shades, also free from cloth and metal.

32.—NO. 2 RED RUBBER (*Yawl*). Must consist of material such as red toys, balls, mechanical red. Must be free from jar rings, soles, packing, hard or oxidized rubber, cloth and metal.

33.—RED PACKING (*Yarn*). Must be free from hard or oxidized rubber, cloth and metal and discolored rubber.

Albert D. Rogers Dead

Albert D. Rogers, director and sales manager of the Cincinnati Rubber Mfg. Company, Cincinnati, Ohio, has passed away. He was in his forty-third year and had been connected with the Cincinnati company since its organization thirteen years ago. Prior to that he had represented the Whitman & Barnes Manufacturing Company, Akron, Ohio, throughout the Southern territory.

News of the Rubber Trade

A New Proofers Organization—Enemy Alien Plant Sold—Phoenix Elects Officers—Gregory Moves to Warren—Rubber Companies Combine for Workmen's Insurance—Boston Belting Again Changes Hands—Other Items of Interest

Waterproofers Organize

To speed up waterproofing work for the army, the waterproofers have formed an advisory body to be known as the Waterproofers' Committee of the Naval Consulting Board.

The members comprise V. G. Guinzburg, I. B. Kleinert Rubber Co., New York; R. K. Goodlatte, T. R. Goodlatte & Son, Delaware, N. Y.; W. B. Price, Price Fire & Waterproofing Co., Poughkeepsie, and Herbert P. Pearson, general manager of the Cravenette Co., who is chairman of the board.

A. W. Faber Plant Sold

The plant of A. W. Faber, manufacturer of rubber stationery supplies, was sold at auction on September 17 under the auspices of A. Mitchell Palmer, Alien Property Custodian, for $145,000 to Theodore Friedberg, an investment banker, with offices at 30 Church Street, New York, and member of the New Jersey Machinists' Exchange, Newark.

There was only one other bidder, Weldon Roberts of the Weldon Roberts Rubber Co., Newark.

The first bid for the property was $100,000, made by Friedberg, Roberts then bid $125,000, and the bidding went up $1000 at a time until the property was knocked down to Friedberg.

Hood to Build Addition

The Hood Rubber Co., St. Nicholas Avenue, Watertown, Mass., will build a 100 x 200-ft. addition to its plant. It is estimated that the improvement will cost about $135,000.

National Aniline to Have a New Plant

The National Aniline & Chemical Co., New York, has awarded the contract for the construction of a 106 x 196-ft. plant at Marcus Hook, Pa., to cost $140,000.

Rubber Plant Moves

Arrangements have been completed whereby the Gregory Rubber Co., manufacturing toy balloons and advertising novelties, will move from Akron to Warren, it is announced. The plant will consist of three buildings, the first one measuring 50x200 feet, two stories. There will be an engine and boiler house and the third building will be 25x50 feet. About 100 persons will be employed and operation will start in sixty days. Labor conditions are said to be responsible for the move.

The Gregory Rubber Co. was organized in Akron in 1910 and in 1915 was incorporated for $25,000. The business has grown in such proportions that the capital has been increased to $100,000 to meet the demand for its products.

The company is now engaged in the manufacture of druggists' sundries as well as its regular line of toy balloons and play balls. A number of articles will soon be added to the company's lines. Among these will be surgical and household gloves, hospital and physician supplies and patented fountain syringes.

Phoenix Elects Officers

At a meeting of the stockholders of the Phoenix Rubber Company, manufacturers of reclaimed rubber, Akron, Ohio, held at the company's factory in East Akron, directors were elected as follows: Theodore Krumeich, F. R. Ormsby, Ernest C. Deibel, Edmond F. Krumeich, S. G. Rigdon, J. G. Bretson, all of Akron, Ohio, and Max Solomon, of Cleveland, Ohio.

The directors elected the following officers: Theodore Krumeich, president; F. R. Ormsby, vice-president; Edmond F. Krumeich, treasurer; S. G. Rigdon, secretary and general manager, and J. G. Bretson, general superintendent.

Rubber Mutual Liability Insurance Co.

The Rubber Mutual Liability Insurance Co. has been organized in Boston, Mass., to take over from the Massachusetts rubber mills the handling of business connected with the workmen's insurance and compensation on the mutual plan as provided by the state laws. This company is largely made up of members of the various corporate bodies affiliated or in the United States Rubber Company. The following are the officers: President, Lester Leland; vice-president, H. H. Nance; treasurer, H. P. Ballard; secretary, Eben F. Dewing; assistant secretary, John A. Nowicki; managers, Hamlin & Co., of New York City. The office of the corporation is at 130 Essex Street, Boston.

Takes Over Interest in Boston Belting

Kidder, Peabody & Co., the Boston bankers, have taken over from Willett, Sears & Co. the controlling interest in the Boston Belting Co. The acquisition of the majority stock of the Boston Belting Co. by Willett, Sears & Co. last year was announced at the time in THE RUBBER AGE AND TIRE NEWS. The owners are not yet in a position to state their future plans.

Seiberling Gets Letter by Air Mail

(Special Akron Correspondence)

The first letter to reach Akron via the New York-Chicago air mail route was received by F. A. Seiberling, president of the Goodyear Tire & Rubber Co. It was from Henry Woodhouse, editor of *Flying*, and expressed the writer's appreciation for Mr. Seiberling's efforts toward speeding up aircraft production.

Goodyear Aviator Held in Holland

Aviator Lieut. Don Harris, formerly of the Goodyear Tire & Rubber Co., Akron, Ohio, has been interned in Holland for the duration of the war. The report of his interment states his airplane was fired upon by anti-aircraft guns and struck in several places. He was forced to descend for repairs, but unfortunately was unable to get back to the American lines, and was interned before he could complete his repairs and get under way again. He reports the best of treatment by the Holland authorities.

Thirty fair co-eds from Oberlin College (Ohio) have been spending their summer vacation helping to speed up production of war materials by making gas masks at the plant of the Goodyear Tire & Rubber Company, at Akron, Ohio. These girls are from the various departments of the college from freshmen to seniors. Actuated by a patriotic desire to do their bit in helping to win the war, they gave up their usual school vacations to make badly needed gas masks for our soldiers at the front. They have just returned to their studies.

American Rubber Patents

ISSUED AUGUST 6, 1918

1,274,496—To Rudolph J. Arens, Akron, Ohio, assignor to the Firestone Tire & Rubber Co., Akron, Ohio. Process of manufacturing tire casings.

1,274,620—To Andreas M. Sonnichsen, Milwaukee, Wis., assignor to Protex Mfg. Co., Chicago, Ill. Tire gage.

1,274,751—To John L. Niswander, Quincy, Ill. Demountable rim remover.

1,274,853—To Fred S. Carr, Newton, Mass. Rubber heel.

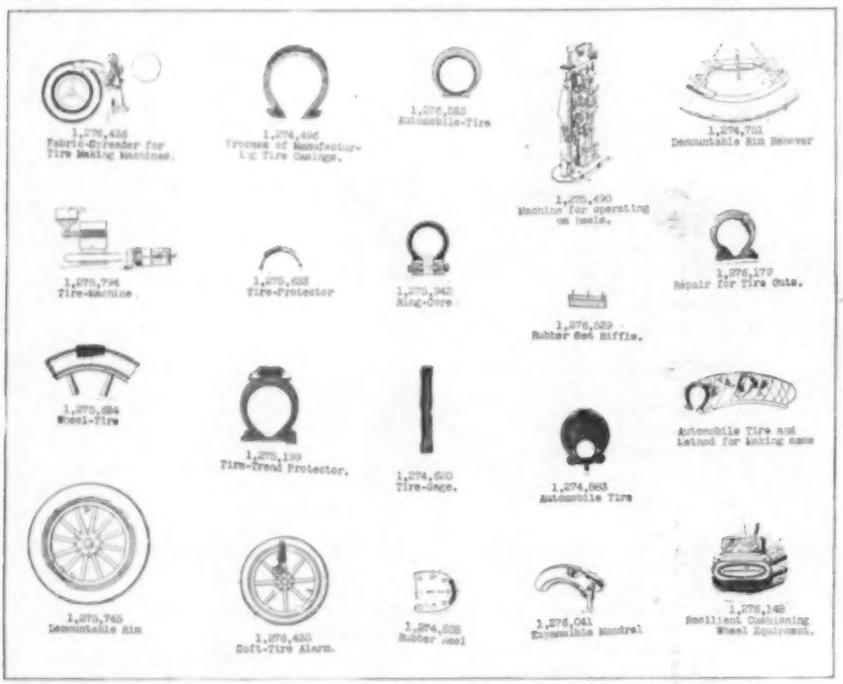
1,274,883—To Leo Hofmeister, Milwaukee, Wis. Automobile tire.

1,275,033—To William C. Hunton, Providence, R. I. Pneumatic tire valve.

1,276,436—To William C. Stevens, Akron, Ohio, assignor to the Firestone Tire & Rubber Co., Akron, Ohio. Fabric-spreader for tire-making machines.

1,276,529—To Joe Horn, Ray, Ariz. Rubber-set riffle.

1,276,533—To Samuel Hummel, Fort Yates, N. D. Automobile tire.



ISSUED AUGUST 13, 1918

1,275,199—To Charles W. Bain, Norfolk, Va. Tire-tread protector.

1,275,416—To William S. Gedney, Belleville, N. J. Tire-valve control.

1,275,483—To Patrick Daniel Skahen, Syracuse, N. Y., assignor by mesne of assignments to Henry H. Simpson, Brooklyn, N. Y. Anti-skidding device for vehicle wheels.

1,275,484—To Patrick D. Skahen, Syracuse, N. Y., assignor by mesne assignments to Henry H. Simpson, Brooklyn, N. Y. Anti-skidding attachment.

1,275,490—To John F. Standish, Winthrop, Mass., assignor by mesne assignments to United Shoe Machinery Corp., Paterson, N. J. Machine for operating on heels.

1,275,523—To Frederick A. Bragg, Springfield, Mass. Automobile tire and method of making the same.

1,275,633—To Guy B. Waite, New York, N. Y. Tire protector.

1,275,634—To Guy B. Waite, New York, N. Y. Wheel tire.

1,275,745—To Charles R. Ragsdale, St. Louis, Mo. Demountable rim.

1,275,794—To James D. Thomson, Akron, Ohio, assignor to the Goodyear Tire & Rubber Co., Akron, Ohio. Tire machine.

1,275,942—To Karl B. Kilborn, Akron, Ohio, assignor to the Goodyear Tire & Rubber Co., Akron, Ohio. Ring core.

ISSUED AUGUST 20, 1918

1,276,041—To John L. G. Dykes, Chicago, Ill. Expansible mandrel.

1,276,148—To Joseph S. Williams, Riverton, N. J. Resilient cushioning wheel equipment.

1,276,149—To Joseph S. Williams, Riverton, N. J. Resilient cushioning wheel equipment.

1,276,179—To Mike Copps, Reidsville, Ga. Cure or repair for automobile tire rib cuts and blow-outs.

1,276,349—To Frank A. Hager, Portland, Ore. Tire filler.

1,276,411—To Raymond B. Price, New York, N. Y., assignor to the Rubber Regenerating Company, a corporation of Indiana. Treatment of tires.

1,276,435—To George L. Stevens, Long Beach, Cal. Soft-tire alarm.

J. D. Carberry Returns

John D. Carberry, assistant secretary of the U. S. Rubber Co., and secretary to Colonel Colt, has returned from a vacation of several weeks at his farm in Vermont.

Quaker City Incorporates

Announcement is made that the firm of Charles A. Daniel, trading as Quaker City Rubber Company, manufacturer of mechanical rubber goods and automobile tires and inner tubes, has been incorporated under the old title. The officers of the new corporation are: Charles A. Daniel, president and treasurer; William F. Metzger, vice-president, and H. R. Shellenberger, secretary and assistant treasurer.

W. H. Dickerson in Deferred Classification

The name of W. H. Dickerson of Washington, D. C., is given in a list of employes of the War Trade Board for whom deferred classification for military service has been asked and allowed. Mr. Dickerson is in charge of the Rubber Section of the Board and was formerly manager of the Washington office of the Rubber Association of America.

Miller Rubber Co. Exhibits

The Miller Rubber Co., Akron, Ohio, recently had an exhibit of sponge rubber and rubber cement at the convention of the International Stamp Manufacturers' Association, which was held in Detroit, Mich. L. H. Mercer represented the company.

New Jersey Zinc Co. Gets Lake

The New Jersey Zinc Co., operating at Franklin, N. J., has acquired Lake Wawayanda and surrounding territory from the New York Transit Co. The tract covers about 6000 acres, and will be used for water supply and other purposes.

Rubber Men Help Akron W. S. S. Campaign

A bright feature of Akron's War Savings Stamp campaign was two competitive patriotic shows, staged by employes of the Goodrich and Goodyear. The best theatrical and entertaining talent at the rival plants presented two exceptional entertainments—the award of highest merit going to Goodrich. The accompanying picture shows the Goodrich actors and the Goodrich audience. The award was given for the highest score on the quality of the play, handling the crowd, number in attendance, and the value, in an educational way, to the W. S. S. campaign.

Although the Goodrich show was purely to enlighten those who did not thoroughly understand the purpose and value of Thrift Stamps, over $4,000 in "Baby Bonds" was the voluntary purchase of those in attendance. The Goodrich company of players presented their performance to enthusiastic audiences in nearby towns during the campaign.

Pohlman of Thermoid Dead

Dale Owen Pohlman, Chicago district manager of the Thermoid Rubber Co., Trenton, N. J., died in the Middle Western metropolis after a lingering illness. Mr. Pohlman was a bachelor and was well known in Trenton, where he was sales manager of the Thermoid company for several years, and a member of the local lodge of the Elks and the Carteret Club. Floral tributes were sent to his funeral, which was held at Greensburg, Ind., by Trenton friends and employes of the Thermoid Rubber Co.

Jones and Work Reach France

(Special Akron Correspondence)

A. B. Jones, vice-president of the B. F. Goodrich Co., and Fred Work, brother of B. G. Work, president of the same company, have arrived in Paris to take up Red Cross work. Mr. Jones has been appointed head of the Red Cross transport service in the war zone. He will serve without pay. Mr. Work will assist him.

Parmenter Manages General Asbestos

H. P. Parmenter, formerly of Athol, Mass., has been made manager of the General Asbestos & Rubber Company's branch at Chicago, Ill. He was recently stationed at Pittsburgh.

J. P. Devine Plans Addition

The J. P. Devine Co., well-known manufacturers of vacuum drying and impregnating apparatus, plans to build an addition to its plant at Clinton Street and the Erie Railroad, Buffalo, N. Y.

H. J. Conroy General Manager

Henry J. Conroy has recently been appointed general manager of the Alfred Hale Rubber Co., of Atlantic, Mass. He succeeds A. A. MacLaren, who has resigned. Mr. Conroy was formerly with the Bay State Insulated Wire Co., Hyde Park, Mass.

New Incorporations

American Tire Filler Corp., New York City; capital, $35,000; to buy and sell "Essenkay," an auto filler.

Cyclops Rubber Co., Wilmington, Del.; capital, $2,000,000; to handle and deal in rubber and by-products thereof.

Cravatex, Inc., New York City; capital, $10,000; to manufacture waterproof apparel; incorporators: A. H. Powel, 1748 Fourteenth Street, Brooklyn; E. R. Stites, 22 East Thirty-first Street, New York City.

Dependable Tire & Rubber Corp., New York City; capital, $650,000; to manufacture tires and rubber goods.

State Tire & Rubber Co., New York City; to buy, sell and deal in rubber tires and tubes.

TIRE NEWS

Retail Selling of Tires

By Charles Johnson

The most successful tire manufacturers are those who have recognized the importance of educating the retail dealers who handle their products. manufacturers who have understood that their success cannot be complete unless their dealers are successful. Dealers to be successful must be tire merchants in the real sense of the word.

A Remarkable Patriotic Window Display by a San Francisco Firm

The tire trade is comparatively a new one and its great earning capacity has attracted to it men from all walks of life and of all grades of ability.

In the early days of its existence the tire industry was particularly attractive to inventive geniuses—it still is today, but to a lesser extent. These inventors also were of all grades of ability, and nearly all made the mistake of not only attempting to invent improved tires, but to manufacture them, and only too often the product died of expensive improvements. Economy and standardization were never thought of. Those who had invested their money either took their loss, sold out and quit, or else displayed a sufficient amount of courage to realize that there was a big future in the business and immediately took steps to organize on a business basis, not as manufacturers of inventive monstrosities, but as business men. Probably no business has shown such tremendous strides from the manufacturing standpoint, decreased costs and increased efficiency, as have been shown by the tire industry.

Merchandising History

The first dealers in tires were automobile dealers who were sons of wealthy parents, who had nothing to do, and saw an opportunity of going into a business surrounded by good times. It was this joy party element that gave to the automobile and tire business the title of "game."

Another element which was early attracted to the automobile and tire business were those men of a mechanical turn of mind who enjoyed tearing down engines to see how they were made. Both of these elements have been obliged to get down to real business or go down and out. The "game" has become a business. Today a very definite opinion is held by all those who have spent time and money in the merchandising of tires that it is necessary that tires be marketed on a business basis and that this merchandising should not be hampered by wilful wastes in the condition of business. Successful tire manufacturers all recognize that the same standard of efficiency must exist in the marketing of tires as has already been accomplished in their manufacture.

Importance of Real Service

Sales are no longer the paramount issue. Sales must still be pushed, but care must be given to the tires that have been sold and are being used in the dealer's territory. The dealer must not make an asset of those tires if he is to stay in the business. Those who make a liability of them are doomed to destruction. The management of the dealer's place of business to an extent second only to the quality built into the tires, is the thing which answers the question as to whether the tires being used in a dealer's territory are an asset or a liability. The condition of the dealer's salesroom is an asset or a liability in proportion to the cleanliness, orderliness and general atmosphere in that salesroom, be it large or small. There are clean, orderly stores that are a joy and there are dirty ones, which invariably create a bad impression. Tire salesrooms must be kept clean and orderly. Circus posters and the like are not part of a well-ordered salesroom, nor are dirty floors, with catalogues thrown promiscuously all over a place. Tires laying around in any old way and exhibited without effort for appearance cannot be a permanent condition in successful marketing.

Handling of Customers

Of equal importance is the reception a customer gets when he enters a salesroom. Success in a community is a combination of a man's ability and the estimate that the public places upon him, and of the two the ability is the least important. It is absolutely essential that the customer be compensated for the time he devotes to coming into a tire salesroom by a hearty welcome.

Tire and automobile accessories should be handled by tire dealers. There is money in them, even if they do nothing more than to pay their own way, for they help to bring the dealer and his salesmen more and more continuously in contact with customers and help them to work out that personal equation that strengthens their position in the community. It is generally considered bad business to sell a man a tire and then never see him again. Intelligently run, the accessory end of the business is invariably profitable. Where the volume of trade is sufficient, it is advisable to have a man devote all of his time to the accessories department.

The purchasing of accessories should be done intelligently and all the men selling tires should be interested in the sale of accessories. Only those staple accessories for which there is a steady or seasonal demand, such as patches, flaps, reliners, tire tools, tire covers, trunks, pumps, spark plugs, etc., should be carried by the average tire dealer.

Stockrooms

Stockrooms can either present a profit or a loss. Tires improperly stored will deteriorate. Exact data as to stock on hand should be constantly available, less a large amount of the investment be totally useless, because never moved.

Such lack of efficiency that keeps a disorderly stockroom cannot possibly be part of the merchandising of tires in the future.

Repair Work

Tire repairing has a great future and is already an important part of the business. Tire repair shops can and must be run honestly and at a profit in conjunction with the sale of tires. This end of the business must not be run at a loss for it is a feature that can positively be handled profitably.

Public Confidence

Leaving alone the moral side of the question, public confidence is one of the biggest assets a dealer can have in a community. It means dollars and cents to him. Public confidence cannot be secured by sitting down and wishing for it, it must be earned like any other commodity. The dealer's whole organization must beyond any question of doubt know that the dealer is "on the level."

Importance of Permanent Business

Tire retailers must aim to make their business a permanent one. As long as there are automobiles and tires we must have merchants to market them, and to be permanent the business must be profitable. Successful tire manufacturers are allowing a sufficient ratio of discounts for this.

To Prevent Tire Hoarding

The War Service Committee of the Rubber Industry of the U. S. A., is distributing among tire manufacturers, for mailing to their respective dealers and agents, the following circular, which deserves wide pubilcity and its recommendations should be strictly followed for the better interests of the trade:

September 23, 1918.

TO ALL TIRE DEALERS:

This Committee has frequently had brought to its attention newspaper and trade paper reports and other rumors, erroneous either in whole or in part, as to the attitude of the Federal Government as expressed by the War Industries Board in connection with the manufacture, distribution and purchase by users of pneumatic automobile tires.

In connection with the National War Program, the Government desires to help and induce all to save unnecessary investments in materials, unnecessary expenditures of money, and unnecessary employment of man power.

In conection with our National Shipping Program, they also desire to save shipping space.

Such limitations as have been made in the importation of supplies of crude rubber have been made after a full conference with the Industry, and it is the intention of the War Industries Board to endeavor to see that the country has all that it *actually needs* without any undue hardship. Any restriction in the production of pneumatic tires is made after a review of the conditions of stocks in the hands of manufacturers throughout the country, for the purpose of reducing unnecessary investments in tires, and you are urged to aid in this national program and to *prevent*, so far as lies in your power, *any hoarding of tires*, or any unnecesary purchase or anticipation of needs on the part of distributors, dealers or owners.

We are confident that a sufficient quantity of tires will be manufactured to take care of the cars that will be permitted to be run, and the Government will look with stern disfavor on any profiteering or hoarding and will act accordingly.

Your patriotic and hearty co-operation is solicited.

Yours very cordially,
WAR SERVICE COMMITTEE, RUBBER INDUSTRY,
B. G. WORK, *Chairman*
H. E. SAWYER, *Vice-Chairman*
E. H. BROADWELL
H. S. FIRESTONE
J. N. GUNN
G. B. HODGMAN
P. W. LITCHFIELD
C. T. WILSON
M. L. HEMINWAY, *Secretary*

More Automobile Restriction Coming

(Special Akron Correspondence)

Rubber factories are to go on a 100 per cent war and essential goods manufacture basis, according to P. W. Litchfield, vice-president and general manager of the Goodyear Tire & Rubber Co.

There is no present change in the allocation of rubber, which now amounts to about one-half to five-eighths of last year's use, he said.

Since the curtailment in importation of rubber early this year has not affected the use of the passenger automobile, consumption of tires, which is the largest product of Akron rubber factories, is soon to be regulated.

"The autoless Sundays announced as a means of saving gasoline had other considerations behind them," he said. "The Government will shortly announce further restrictions in the use of all rubber-tired machines approaching a full essential use basis.

"The rubber industry has agreed to make its production 100 per cent essential. That means it will handle all war business given it, and such other production as the War Industries Board will outline. On this basis it goes on the priority list for rubber, steel, cotton and other materials.

"The Government is trying to arrive at the amount of essential use of the automobile needed in war times, and will then permit sufficient accessories to be manufactured to supply this."

The importation of Egyptian long-staple cotton, used in tire fabric, has been shut off, he said, and tire manufacturers will have to rely on American grown cotton or substitutes.

Mr. Litchfield predicted an excellent future for the rubber business when the war is over.

"Every war in this country has been followed by a revival of transportation," he said. "We shall have to make provision for the hundreds of thousands of men returning from the army. America has plenty of land. As a whole the country is sparsely settled. We still have the opportunity to fill up great sections now but scantily populated. And in this development the creation of new highways and the increased use of the automobile bringing the city and the country together will play a large part."

No Auto Shows in 1919

The National Automobile Chamber of Commerce has cancelled the national automobile shows of 1919 to have been held during January and February in New York and Chicago, at the request of Bernard M. Baruch, chairman of the War Industries Board and George N. Peek, Commissioner of Finished Products.

Going further to meet the views of the War Industries Board, the automobile industry leaders have urged promoters of local shows for automobiles, trucks or accessories to abandon all plans for such during the coming winter.

The reason given to the industry for this action by the Automobile Chamber of Commerce is a desire to cooperate with the War Industries Board in plans for conservation of fuel, labor and transportation.

The question of advisability and practicability of holding these shows, both national and local, was taken up with Messrs. Baruch, Peek, Alexander Leggs and Judge Edwin B. Parker, of the War Industries Board, by Hugh Chalmers and Alfred Reeves, of the National Automobile Chamber of Commerce, and Mr. Peek strongly urged that all such exhibitions be abandoned for the winter. Mr. Chalmers presented the views of the War Industries Board to his Chamber of Commerse and Mr. Peek has received from Mr. Reeves, general manager of the Chamber, a letter stating that the directors of the Chamber concurred unanimously in the opinion of the Board and has adopted the following resolution:

"Resolved, that the promotion of national automobile shows during the winter of 1918-19, with consequent use of transportation, fuel and labor would, in the opinion of this Board, be inconsistent with the patriotic obligations of the industry and that, therefore, national shows be suspended until further action of the association.

"Resolved, that for reasons expressed in the foregoing resolution, promoters of local and other shows be respectfully requested not to hold automobile, truck or accessories exhibitions during the winter of 1918-19."

Mason to Make Masks and Raincoats

(Special Akron Correspondence)

The Mason Tire & Rubber Co., Kent, Ohio, a concern which was hard hit by the order limiting the pneumatic tire output, has gone into the manufacture of gas masks and raincoats for the army. The company recently was awarded a $100,000 war order.

This is looked upon as a forerunner of other war orders to the small tire companies in and around Akron. Some of these companies, such as the General Tire & Rubber Co., already are engaged in Government work.

MARKETS

Manufactured Rubber Goods

NEW YORK, Sept. 24, 1918.

In spite of the many difficulties confronting the rubber trade at this time, jobbers and retailers are doing a volume of business that is believed to be fully equal to that done by them last year; in fact, some report sales in excess of 1917 totals.

The Government has warned manufacturers and shippers to rush rail transportation as much as possible, especially eastbound traffic, as the Federal authorities have arranged to commandeer the lines throughout October for rushing munitions and supplies to the Atlantic coast for use by the Army and Navy, both here and abroad. The Baltimore & Ohio Railroad has, in fact, already been directed to confine its freight-carrying activities to coal and ignore other traffic. This probably means that the Pennsylvania system will have to carry much of the freight ordinarily handled by the B. & O.

The difficulties of obtaining merchandise are growing daily and there is no hope of improvement. On the contrary, matters promise to become more serious, and it no doubt will soon become impossible to replace rubber goods that are not considered essential by the Government. The rubber industry has been placed on the preferred industries list of the War Industries Board and will have to strictly conform with the obligations it assumes to receive this classification. Many lines of goods will have to be eliminated and the war will now be brought home forcibly to all. However, this classification will make the lot of the industry as a whole easier than it would have been otherwise. More plants in all lines of manufacture are continually being placed in the less essential classes, where they can hope to receive only very limited supplies of raw materials, labor and coal.

The new draft has created some uncertainty in regard to help for both jobbers and retailers, and in many instances girls are now taking the places of men. In the jobbing houses girls are even unloading and packing goods. From all reports, they are giving excellent satisfaction.

Collections are reported to be good and cash sales are above normal.

Mechanical Goods

Conditions in the jobbing and retail trade in rubber mechanical goods, as regards doing business and getting goods, are steadily growing worse. Some jobbers state that on many lines of goods their stocks are entirely depleted, with slight prospects of being replenished in the near future. The slump in building has caused a falling off in the demand for mechanicals in many districts. This, however, is more than compensated for, as far as manufacturers are concerned, by the growing demand by the Government and Government contractors for practically all classes of mechanicals.

Transportation and other difficulties are keeping down shipments; many manufacturers report curtailments in their outputs due to labor and material shortage. Matters in this sense will grow steadily worse in the case of articles that are not considered essentials by the War Industries Board, but the preferred classification which the rubber industry has just received will no doubt facilitate and increase the production of essential articles; that is to say, articles essential to the war or to industries engaged in war work.

Tires

Dealers in various parts of the country report that deliveries of both cycle and automobile tires are becoming very slow. Jobbers are said to be advising retailers to stock up tires as much as possible, because it soon will be very hard to get them. Dealers, however, must be careful in following these instructions, for the aim of the Government authorities is to prevent any hoarding of tires or any unnecessary purchase or anticipation of needs on the part of distributors, dealers and owners. The War Industries Board has stated that it will do its best to see that the country has all it needs without any undue hardship, and the War Service Committee of the Rubber Industry, as will be seen elsewhere in this issue, has expressed its confidence that a sufficient quantity of tires will be manufactured to take care of the cars that will be permitted to be run, and the Government will look with stern disfavor on any profiteering or hoarding. Past experience in other lines should make clear to all what this means, and hoarding, it can be expected, will be severely dealt with by the Government departments that are organized to prevent it. Dealers must neither purchase nor hold tires in excess of what they absolutely need to supply their customers, and they should not allow their customers to make unnecessary purchases in anticipation of needs. Every form of hoarding is in Government disfavor, and hoarding by any class, even consumers, is liable to bring Government action that would hit the dealer, his jobbers and manufacturers very hard, and certainly spoil the dealer's business. The Government wants to reduce unnecessary investments in tires, and the restrictions of tire production that have taken place and are now in force were made largely with this end in view. These restrictions were also made to prevent unnecessary employment of man power, so it is clear that there are several reasons, any one of which will make the Government exert all its powers to prevent hoarding or unnecessary anticipation of needs by anyone—manufacturer, distributor, dealer or consumer.

The retail demand for tires is fairly active, but has been materially reduced by the action of the Government in requesting automobile owners not to use their cars on Sundays, except for absolutely necessary purposes. The situation is far from being discouraging, however, for it is becoming more and more generally recognized that the automobile, like the telephone, has become a fixed factor in the business and industrial world of the present generation.

Druggists' Sundries

The scarcity of goods is now the most important feature in the druggists' sundries trade, and it can only be expected to become more serious, for all factories will have to use as little rubber as possible, and labor is becoming more difficult to obtain. Non-essentials will have to be dropped to an increasing extent and special goods will soon be out of the question unless they are essentials or absolutely needed for the preservation of life.

Standard goods will have to be limited in variety until normal conditions return.

From now until the war is won jobbers and dealers will have to make it their duty to reduce their lines insofar as variety of number is concerned. For instance, an assortment of four or five water bottles and their companion syringes and combinations should be all that is required, and, where possible, these should all be of one color. Study of matters will reveal the fact that a surprisingly large number of items can be consistently dropped.

Care should also be exercised by all concerned not to attempt too far to anticipate needs and create a hoarding condition, which would be looked on with disfavor by the Government and might well lead to drastic measures that would be detrimental to all concerned.

Footwear

There probably will be a serious shortage of rubber footwear for civilian use this winter, for the Government for several months has been taking fully 60 per cent. of the capacities of the factories, and the rubber footwear schedule issued by the Conservation Division of the War Industries Board will not help to increase factory outputs. In fact, this schedule calls for the stopping of manufacture of many types of rubber footwear. Jobbers are accepting orders subject to ability to make deliveries.

Cotton, Yarn and Fabrics

NEW YORK, September 18, 1918.

The general trend of the raw cotton market during the past week has been lower, the uncertainty regarding the price-fixing plans of the Government, combined with heavy selling by Southern interests and a sharp break in the Liverpool market causing a further reaction in prices on the local Cotton Exchange. At present there is much uncertainty as to what price will be established for cotton, reports that the price was to be fixed at between 25 and 28 cents per pound having been denied. The news of the contemplated price-fixing affected the Liverpool market even more so than the American market, prices breaking from 60 to 80 English points at one time during the trading.

Trade buying has been reported in good volume since the break in the price, and

December has been a particularly favored option by these buyers. Japanese interests have also been buying rather heavily of the December option. The latter are reported in some cases, however, to be buying for English interests.

Weather conditions throughout the South are still rather unfavorable as regards the cotton situation, but the present crop has attained such a growth that nothing short of a severe frost or storm can have much effect on the final out-turn of the staple. The latest Government crop report issued contradicted private reports of improvement in the crop condition in Texas and cast doubt on prospects for a top crop. Progress was reported in picking and ginning in parts of the Eastern belt, but a shortage of labor is reported to be hindering operations. Practically all the Texas crop has already been picked.

SEA ISLAND COTTON

A firm condition prevails in this market, and prices are strongly maintained for the raw Sea Island extra choice at around 75 cents per pound. The growing crop has suffered from the poor weather conditions which have affected cotton generally this season, and the yield will be rather low, according to all reports.

EGYPTIAN COTTON

There have been no new developments in this division, and the chief factor in the market is still the shipping situation. American buying of the new crop is still going on under the supervision of the Cotton Control Commission, handling the crop for the British Government, and all American buying must be done through cotton houses or brokers in Alexandria. The various grades of Egyptian cotton are being marketed under the new terms established by the Cotton Control Commission. No recent arrivals of Egyptian at Boston have been noted.

FABRICS

The general fabrics market has now passed practically under complete Government control, and trading is being done along well established channels. The Government is still the chief consumer, every day seeing a new list of goods required for the Government being issued. Purchases are being made constantly by the War and Navy Departments to fill pressing needs, and to civilian consumers, who before the regulation of the market by the Government had experienced considerable trouble in buying at fair prices; it is an everlasting wonder where all the fabrics the Government is buying are coming from.

TIRE FABRICS

The prevailing shortage of Sea Island and Egyptian cotton yarns, combined with the unsettled condition in the tire and other rubber goods markets, continues to restrict trading in this market, and dealers are not quoting prices, inasmuch as they are still unable to get any goods to sell. The elimination of the manufacture of many rubber articles by Government order will still further cut down the demand for the cotton yarns.

HOSE AND BELTING FABRICS

Demand for these fabrics continues strong, and the market is active under the scale of prices established by the War Industries Board. These prices on ducks, etc., apply to all purchases, whether for Government or civilian account. The bulk of the business being done at the present time, however, is for Government account, and the enormous requirements of webbing, duck, canvas, etc., are taking practically the entire production of the country.

DRILLS, SHEETINGS AND OSNABURGS

Government prices and regulations now govern this market, and a steady routine business is being done in the regular market, while a heavy Government business is also being done. The army consumption of osnaburgs for camouflage purposes continues large, and large amounts of drills and sheetings are also going to the Government. The maximum prices as established by the War Industries Board will remain in force until Oct. 1, when a general revision will be undertaken. Buyers in the Quartermasters' Department have advised manufacturers of cotton socks and underwear that the Government is heavily overbought in this class of merchandise. The majority of cotton knit goods mills have on hand war orders enough to keep them running from six to ten months without paying any attention to their regular civilian business.

BURLAPS

Trading in burlaps is listless at the time of writing, and the market has declined still further since the last report. Lack of a consuming demand has forced prices down, and the 40-inch 8-ounce variety is now quoted at 17.50. Prevailing quotations are more or less nominal, but those given below give a fair idea of present market values. Although selling prices in Calcutta are still above those quoted in the local and other American markets, leading dealers look for no improvement in the situation until the demand picks up.

New York Quotations

TIRE FABRICS

17¼-ounce Sea Island, combed, sq. yd.		Nominal
17¼-ounce Egyptian, combed		Nominal
17¼-ounce Egyptian, carded		Nominal
17¼-ounce Peelers, carded		Nominal
17¼-ounce Peelers, combed		Nominal

DUCKS

*Single Filling (pound basis)	lb.	.78
*Double Filling (pound basis)		.79

DRILLS

37-inch 2.35-yard	yd.	.35
37-inch 2.75-yard		.30
37-inch 3.00-yard		.29
37-inch 3.25-yard		.27
37-inch 3.50-yard		.26
37-inch 3.95-yard		.22½
37-inch 2.00-yard Southern	lb.	.75
38-inch 2.00-yard Northern		—
*40-inch 2.40-yard Southern		60.94
*40-inch 2.40-yard Northern		60.94
*52-inch 1.90-yard Southern		61.79
*52-inch 1.90-yard Northern		61.79

SHEETINGS

40-inch 2.35-yard	yd.	.25
40-inch 2.50-yard		.23¾
40-inch 2.85-yard		.33
40-inch 3.00-yard		.32
*40-inch 3.25-yard		.22¾
*40-inch 3.75-yard		.17⅞
40-inch 3.60-yard		.20
*40-inch 4.25-yard		.15½

BURLAPS
(Spot Carload Lots)

40-inch 8-ounce		17.50@——
40-inch 10-ounce		22.00@22.50
40-inch 10½-ounce		22.50@23.00

* Maximum prices as established by the War Industries Board.

Chemicals and Compounding Materials

NEW YORK, Sept. 24, 1918.

The market ruled steady, with little of change noted throughout the list. Where price changes have been necessary they are more generally toward higher levels than the reverse. Some of the items show only a quiet demand at present, but they are nevertheless in good fundamental positions and prices are being readily maintained by the trade. The uncertainty about the extent of the government restrictions in regard to the use of rubber has caused a conservative buying by manufacturers, who fear a further curtailment in their activities, and little is done in future contracting.

ANILINE OIL

More firmness is exhibited by the market for aniline oil on good demand from various sources, and second-hands report that some good-sized lots have been disposed of on a basis of 28c. per pound. Manufacturers are asking 28c. to 30c. per pound, though not generally making offers at this time, owing to their well-sold position. Stocks in the possession of dealers are not large and the market is in a firm position from their point of view.

ANTIMONY SULPHURETS

The needle antimony is holding steady at 13¾c. @ 13⅞c. per pound, with a small demand reported. Sulphuret red is quoted unchanged at 25c. @ 26c. per pound; golden is held at 28c. @ 30c., and crimson at 45c. @ 47c. per pound, prompt.

BENZOL

Sellers of the pure water white grade of benzol are asking the repeated price of 25c. @ 30c. per gallon for large shipments in tanks at works, though there have been sales reported at 23c. per gallon. There are fairly liberal stocks available for prompt shipments and the demand is fairly active, though it is not large enough to keep abreast of the production and the market, therefore, is just about steady in tone.

CAUSTIC SODA

The market is quiet, but in a fairly good fundamental position, and holders of small amounts are unwilling to part with the mat concessions, asserting that prices will move upward in the near future, with the setting in of anything like an increased demand from consuming sources.

DRY COLORS

There is not a large volume of new general business coming into the market at this time, but all plants are well engaged and there is a steady and increasing demand that comes from government sources. There has been little change in the situation during the past two weeks and prices generally have remained undisturbed.

LITHOPONE

The new prices for the last quarter of the year seem acceptable to the consuming trade, and there is no hesitancy about placing orders. A good forward business is being booked, and producers promise to have more business than they can take care of. The price for the fourth quarter is 8c. to 8½c. a pound, according to quantity.

LEAD PIGMENTS

There has been no change in the situation of the leads since the last report. The price of pig lead remains unchanged, with distribution entirely in the hands of the producers' committee. Despite the scarcity of the metal, consumers who have government contracts are getting their supplies. White lead, basic carbonate is quoted at 10c. @ 10½c. per pound; the basic sulphate is unchanged at 9¼c. @ 9¾c. per pound in casks.

OILS

Linseed oil is somewhat disturbed by a rumor that the government may assume control and allocate all of this season's supply, although crushers do not believe there is any truth in the report. There is much talk of price cutting, although the leading producers still claim to be making no lower quotations than heretofore. Refiners of cornoil are making offers only in tins, refusing to quote in barrels. Prices are without change at the recently noted level of 18c. @ 18¼c.

per pound for the crude in barrels on the spot, and 21.47c. @ 21.67c. per pound for the refined in barrels.

ROSIN

Rosin has continued its wild advance and is now $13 per barrel of 280 lb. There has been a slackening of the demand during the last week, however, and it looks as if the record-breaking price has commenced to check consumption.

Prices Current for Chemicals, Fillers, Colors, etc.

Acetone	lb.	*.25½ @	.25¾
Accelerator, in drums	lb.	.85 @	1.00
Acids, Acetic, 56%	lb.	9.32 @	9.57
Carbolic, C. P.	lb.	.44 @	.46
Cresylic, 95%	gal.	1.15 @	1.25
Muriatic, 20 deg.	lb.	.02¼ @	.02½
Muriatic, 22 deg.	lb.	.02¾ @	.03
Nitric, 42 deg.	lb.	.08½ @	.09
Nitric, 40 deg.	lb.	.08 @	.08½
Sulphuric, 60 deg.	ton	18.00 @	25.00
Tartaric, crystals	lb.	.93 @	.95
Aluminum Flake	ton	29.00 @	31.00
Aniline oil, bulk basis	lb.	.28 @	.30
Antimony, metal spot	lb.	13.75 @	13.87½
Oxide	lb.	15.00 @	16.00
Sulphuret, red	lb.	.25 @	.26
Sulphuret, golden	lb.	.28 @	.30
Sulphuret, crimson	lb.	.45 @	.47
Asbestos	ton	35.00 @	45.00
Asphaltum, Egyptian	lb.	.20 @	.25
Domestic	ton	22.00 @	30.00
Barium sulphate, technical	lb.	.04½ @	.05
Sulphide	lb.	.07¼ @	.07½
Barytes, prime white imported	ton	*40.00 @	45.00
white, domestic	ton	33.00 @	36.00
off color domestic	ton	23.00 @	26.00
Benzol, pure, bulk	gal.	.25 @	.28
Beta-naphthol, sublimed	lb.	.85 @	.90
unsublimed	lb.	.65 @	.75
Blacks, Drop	lb.	.05½ @	.15
Ivory	lb.	.16 @	.30
Carbon, gas, cases	lb	.16 @	.25
Lampblack, R. M.	lb.	.15 @	.20
Mineral blacks	ton	35.00 @	45.00
Blues, Prussian	lb.	1.35 @	1.50
Soluble	lb.	1.40 @	1.60
Ultramarine	lb.	.14 @	.50
Browns, **Umber, Turkey, burnt,** powdered	lb.	.05 @	.07
American, burnt	lb.	.03½ @	.04
Cadmium sulphide, yellow	lb.	2.00 @	2.25
Carbon, bisulphide, bulk	lb.	.08½ @	.09
tetrachloride, drums	lb.	.30 @	.32
Caustic Soda, 76@78%	lb.	.04¼ @	.04½
Chalk, precipitated, extra light	lb.	.05 @	.05¾
light	lb.	.04¾ @	.05¼
heavy	lb.	.03¾ @	.05
China clay, domestic	ton	15.00 @	22.50
imported	ton	*20.00 @	40.00
Fossil flour	lb.	.03¾ @	.05
Gilsonite	ton	50.00 @	55.00
Glue, extra white	lb.	.36 @	.45
medium	lb.	.31 @	.35
low grade		.24 @	.27
Glycerine, C. P. (drums)	lb.	.61 @	.62
Graphite, flake (bbl.)	lb.	.18 @	.20
powdered (bbl.)	lb.	.13 @	.15
Green, chrome, R. M.	lb.	.14 @	.20
Ground glass (fine)	lb.	.03½ @	.04
Hexamethylene	lb.	1.10 @	1.15
Infusorial earth, powd'd.	ton	60.00 @	—
bolted	ton	70.00 @	—
Iron oxide, red, reduced grades	lb.	.07 @	.08
red, pure, bright	lb.	.15 @	.20
Lead, red, dry	lb.	.11¼ @	.11½
sublimed	lb.	.09¼ @	.09¾
white, basic carb.	lb.	.10 @	.10½
white, basic sulp.	lb.	.09¼ @	.09¾
Lime flour	lb.	.01¾ @	.02
Litharge	lb.	.10¾ @	.11¼
English	lb.	*.12 @	.13
sublimed	lb.	.09¼ @	.09¾
Lithopone, domestic	lb.	.08 @	.08½
Magnesia, carbonate	lb.	.16 @	.17
calcined, heavy	lb.	.12 @	.14
calcined light	lb.	.75 @	.80
Magnesite, calcined, pwd.	ton	50.00 @	65.00
Mica, powdered	lb.	.04¾ @	.05
Mineral rubber (asphaltum base)	ton	80.00 @	115.00
Naphtha, motor gasoline, (steel bbls.)	gal.	.24½ @	—
68 @ 70 degrees (steel bbls.)	gal.	.30½ @	—
70 @ 72 degrees (steel bbls.)	gal.	.31½ @	—
73 @ 76 degrees (steel bbls.)	gal.	.33½ @	—
machine (wood bbls.)	gal.	.41½ @	—
Oil corn, crude	cwt.	18.00 @	18.25
corn, refined	cwt.	21.47 @	21.67
linseed (bbls.)	gal.	1.88 @	1.90
palm, Lagos	lb.	*.39 @	.40
pine, yellow	gal.	.57 @	.59
rapeseed, refined	gal.	1.75 @	1.80
Oil, rapeseed, blown	gal.	1.85 @	1.90
rosin, first rectified	gal.	.69 @	..
tar (commercial)	gal.	.35 @	.36
Orange mineral, American	lb.	.14¼ @	.15¼
imported	lb.	*.15 @	.20
Paraphenylenediamine	lb.	3.50 @	4.00
Petrolatum, bbls., amber	lb.	.06 @	.07
pale yellow	lb.	.06½ @	.07½
Pine tar kiln	bbl.	12.75 @	13.00
Pitch	bbl.	7.75 @	8.00
Plaster of paris	bbl.	2.00 @	3.00
Red, Tuscan	lb.	.32 @	.40
Indian (reduced)	lb.	.08 @	.10
Standard	lb.	.14 @	.18
Rosin (common to good) @ 280 lbs.	bbl.	13.00 @	—
Rotten stone, powdered	lb.	.02½ @	.04½
Rubber, substitute, black	lb.	.13 @	.17
white	lb.	.15 @	.24
brown	lb.	.20 @	.25
Shellac, fine orange	lb.	.75 @	.80
T. N.	lb.	.68 @	.69
Bleached ordinary	lb.	.67 @	.68
Bleached bonedry	lb.	.70 @	.80
Silex (silica)	ton	22.00 @	40.00
Soapstone, powdered	ton	15.00 @	25.00
Starch, corn, powdered	lb.	4.62 @	4.82
Sulphur, crude	ton	*50.00 @	..
refined, flour, per 100-pounds, in bbls.		3.85 @	4.40
roll		3.70 @	4.15
commercial		3.25 @	3.75
Talc, American	ton	20.00 @	40.00
French	ton	*30.00 @	35.00
Toluol, pure, in drums	gal.	1.50 @	1.55
Tripolite earth	ton	60.00 @	70.00
Turpentine, pure gum—spirits	gal.	.66 @	—
Turpentine, wood	gal.	.57 @	.58
Venice, artificial	gal.	.12 @	.13
Vermilion, English	lb.	2.00 @	2.10
Wax, beeswax, crude yel.	lb.	.42½ @	.44
ceresin, white	lb.	.22 @	.24
carnauba, No. 3	lb.	.76 @	.77
Montan	lb.	*.35 @	.40
ozokerite, black	lb.	*.65 @	.70
ozokerite, green	lb.	*.80 @	.90
Wax, Paraffin, refined, 118/120 M. P. (bbls.)	lb.	.12¾ @	.13
Paraffin, 123/125 M. P.	lb.	.13 @	.13¼
128/130 M.P.	lb.	.13¼ @	.13½
133/136 M.P.	lb.	.15 @	.15½
Crude, 120/122 M.P.	lb.	.10 @	.10¼
124/126 M.P.	lb.	.10½ @	.11
Whiting, commercial	cft.	1.25 @	—
Alba	cwt.	1.25 @	—
Whiting, Paris, white, American	cwt.	1.50 @	1.75
English cliffstone	cwt.	1.75 @	2.75
Yellow chrome	lb.	.30 @	.35
Zinc oxide, States Brand		.10 @	—
horsehead brand.	lb.	†.10¼ @	.10½
selected	lb.	†.10¾ @	.11
"XX red"	lb.	†.10¼ @	.12
French process, green seal	lb.	†.13½ @	.14¼
red seal	lb.	†.13 @	.14½
white seal	lb.	†.14 @	.14¾
Zinc substitutes	ton	35.00 @	40.00
Zinc, sulphide, pure	lb.	.06 @	.07

* Nominal. † Contract prices.

Crude Rubber

NEW YORK, September 24, 1918.

The market for crude rubber is still reflecting the conditions resulting from the Government restrictions regarding import and use of rubber. The tendency at present is towards lower values, as offerings of free rubber have become more numerous. Manufacturers of non-essentials had no use of their accumulated stock and were anxious to sell. This has consequently brought out lower prices for nearly all grades of free rubber, smoked sheets ribbed on the spot were offered at 50c. and first latex crepe at 52c., while celan brown crepe was quoted at 49c. Rubber for shipment on allocations continues weak, as the situation at the Far East has not been relieved and stocks are still pressing for sale. Clean brown crepe for shipment is held at 29c., which means a reduction of 50 per cent from the fixed maximum price of 58c. Smoked sheets ribbed and first latex crepe for shipments are quoted at 36c. and 38c. respectively. Even the Brazilian grades which have been comparatively steady are quoted now at good recessions from the maximum prices. Para up river fine is held at 51c., Islands fine at 45c., and Caucho ball at 30c. Centrals are fairly steady at 35c. for shipments. At this writing the allocation tonnage for the last quarter of the year has not been made public, but is expected every hour. The new regulations by the Rubber Association will probably cut down the use of rubber for pneumatics to about 33 1-3 per cent of last year's tonnage, but it is expected that the manufacturers working on war essentials will get an allowance of about 75 per cent of their last year's rubber consumption. This seems to indicate that the allocated tonnage for the next quarter will be larger than the former allocations, which were at the rate of 100,000 tons a year.

	Gov. price.	Free rubber.	Allocated rubber.
Para—Up River fine	68	65	56
Up-river medium	63	61	51
Up-river coarse	40	32	31
Caucho ball	40	31	30
Islands fine	59	54	45
Islands coarse	27	26	19½
Cameta	28	27	20
Madeira fine	69	68	57½
Ceylons—smoked sheets, ribbed	62	50	36
Smoked sheets, plain	60	49	34
First latex pale crepe	63	52	38
Amber crepe	60	49	32
Clean brown crepe	58	47	29
Centrals—Corinto, prime	39	37	35
Esmeralda, prime	39	37	35
Mexican scrap	35	35	34
Balata sheets	97	..	..
Balata, block Panama	59	..	..
Guayule	35	35	..
Africans—Rio Nunez, string	55	..	..
Massai, red	55	..	..
East Indian Pontianak	15	..	..
Palembang	16	..	..

Scrap Rubber

NEW YORK, Sept. 25, 1918.

The scrap rubber market continues to be practically lifeless. Reclaimers are taking scrap for current needs only and dealers show little or no interest in offerings. The feature of the market continues to be the remarkable fact that prices are holding up in spite of the practically total lack of interest.

This feature is explained in two ways. Some believe that reclaimers could get important price concessions if they really went in the market to buy and that the reason for the firmness in quotations is that the mills show no interest in proposals. Others are of the opinion that prices would not weaken even if the reclaimers really would come into the market, for the large dealers have the means of holding firm and the smaller ones are making good money in other waste materials.

There is practically no business being done in boots and shoes, and the same applies to arctics and tires. Inner tube prices are steady and unchanged; so are mechanicals prices.

The following prices have been quoted for scrap f. o. b. the reclaiming mill:

Boots and shoes	8¾@9
Arctics, trimmed	6½@6½
Arctics, untrimmed	5¼@5½
Tires—Automobile	5¼@5½
Bicycles, pneumatic	5 @5⅛
Mixed hose	2 @2⅛
Air brake	5⅝@6
Inner tubes, No. 1	21⅛@22¼
Inner tubes, No. 2	11 @11¼

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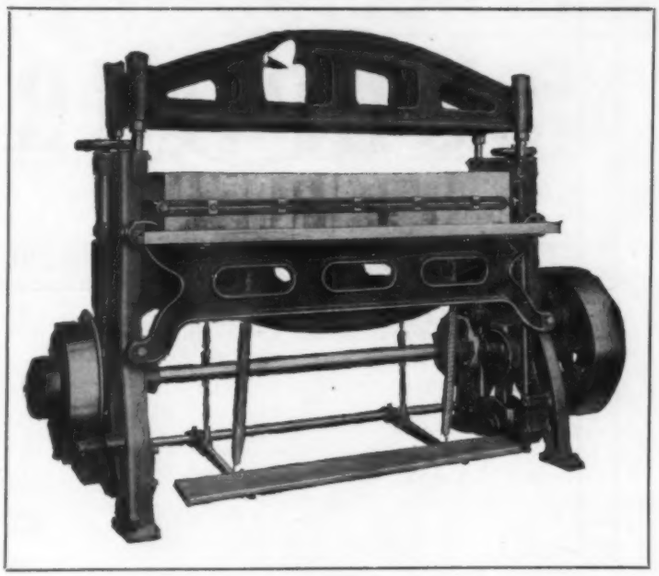

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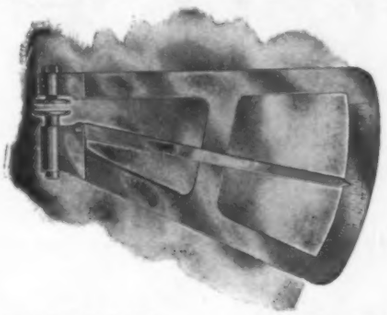

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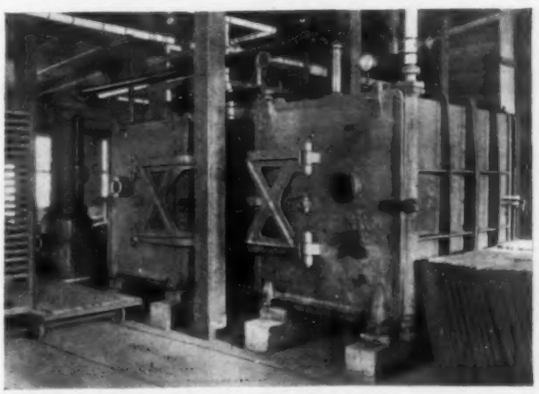

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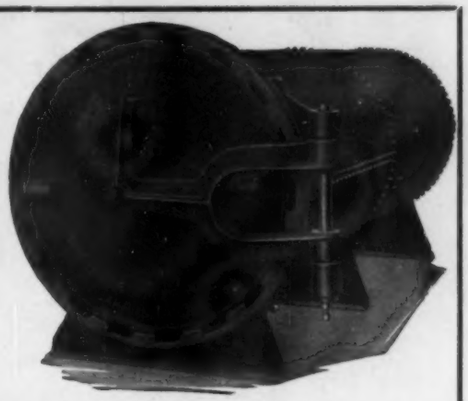

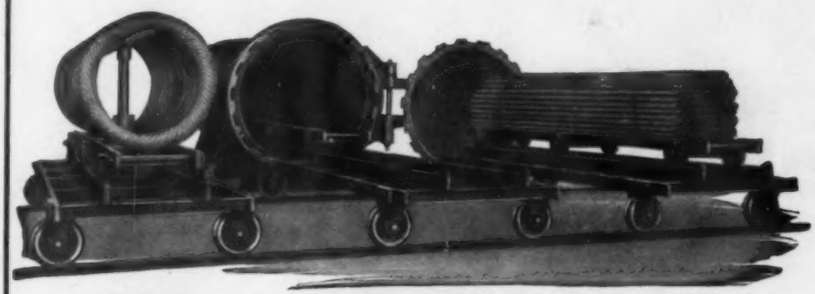

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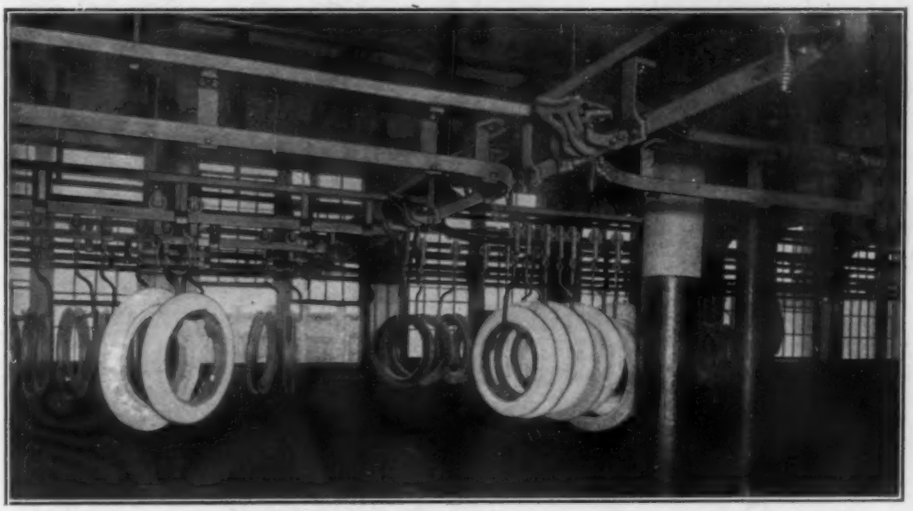

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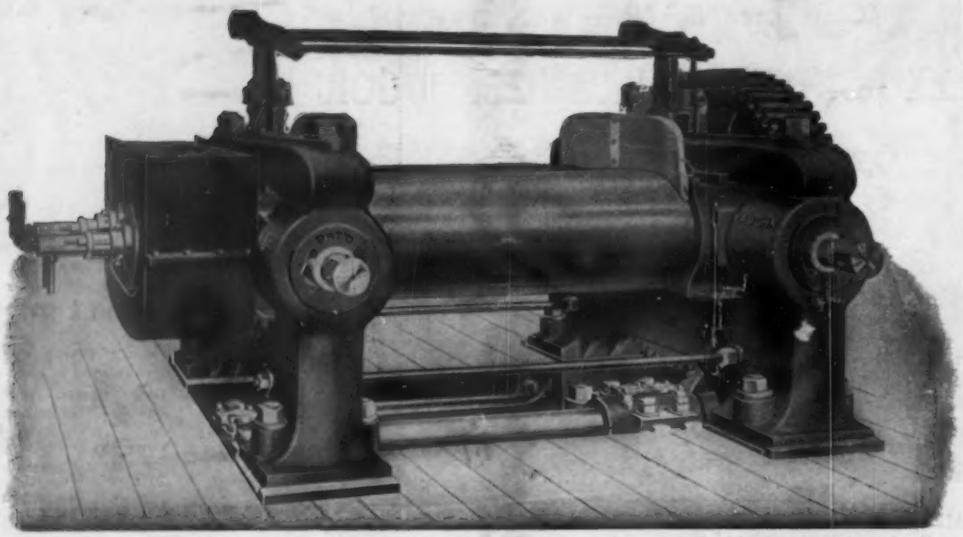

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